

ATARI ST

ST

REVIEW

ISSUE 28

JULY 1994

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ENTERPRISE

PAPER POWER

**WILL PAPYRUS TURN
THE WORD PROCESSOR
MARKET ON ITS HEAD?
FIND OUT INSIDE...**

**... AND TRY IT FOR
YOURSELF!**



ATARI ST REVIEW papyrus

You've read the review - now try the package! All features in the *Papyrus Gold* demo are active. While only single-page documents can be printed, and some letters are printed the wrong way round, you can:

- Create documents from scratch and view at different sizes
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High resolution only (mono emulator included for colour monitors/TVs). 1Mb of RAM required.

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the program dedicated
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UTILITIES FOR YOUR ST...**

07>

INSIDE:

Papyrus • DeskJet 560 • Golden Image Hand Scanner • TrakCom Preview • EZ Art Professional Preview
105Mb SyQuest Drive • Boot Managers • Printer Maintenance • Platform Games • And Lots Of Tutorials...



Don't miss...

THE 1994

Bristol & London

ATARI SHOWS

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ATARI
ST USER

ATARIST
REVIEW

...coming your way

Come along to the only Atari specific shows in the country. You'll find all the leading ST publishers and dealers there, offering all sorts of bargains. This is your golden opportunity to buy virtually anything for your ST, with expert advice to hand.

PRIZE DRAWS

There will be three prize draws at each show (11am, 1pm and 3pm), for a £25 voucher to spend at the stand of your choice on any item...

BACK ISSUES

If you've been following a series and missed the last one, or you were looking forward to the next issue but can't find it at the newsagents, you'll know just how disappointing it is to miss out on an issue. Well, never fear! You'll find various back issues on sale at bargain prices at the *Atari ST User* and *Atari ST Review* stand.

Organised by David Encil, Neal O'nions and Ray Cross



FOR MORE INFORMATION

Who's there

The leading ST publishers and dealers attending include:

- ◆ Atari Workshop – renowned as the ST hardware specialists. They've promised to bring along enough hard drives so that they don't sell out this time! Also, see Cubase Audio here.
- ◆ Best Electronics – all the way from the US of A! Mr Atari, Brad Koda, will have every spare part imaginable along with some delightful Atari memorabilia.
- ◆ CGS Computerbild – Digital Arts' number one international distributor! DA's Layout, DA's Vector Pro, DA's Picture and all the rest...
- ◆ Compo Software – the biggest Atari specialist apart from Atari itself. Compo expect to have That's Write 3, That's Address 2, MusiCom 2, TrakCom, NeoDesk 4 and lots more – including software upgrades for your current Compo products. Computer repairs and upgrades will be carried out on the spot – they'll fit anything you buy at the show!
- ◆ Europress Enterprise – meet Atari ST Review's editor at the London Show!
- ◆ Goodman International and Merlin PD, two of the main Atari public domain and shareware libraries.
- ◆ Titan Designs – it's rumoured that there will be stocks of the Graffiti Genlock available...
- ◆ And yes, you will be able to see Atari's world-beating Jaguar games console as well!

THE LATEST MAGAZINES

Save yourself a trip down to the newsagents and make a beeline for our stand instead. You'll be able to pick up the latest issues of *Atari ST User* and *Atari ST Review* at the shows – before they are on sale in the shops!

SPECIAL SHOW SUBSCRIPTION OFFER

Guarantee your copies of the best Atari magazines by taking advantage of the special show subscription offer, only available to visitors to the shows. It'll only take a few minutes to fill in a form and you'll have every issue delivered postage free to your home.

Previous success

Here's the report on the last London Atari Show that took place at Alexandra Palace.

"Following on from the previous month, over 600 Atari owners took the opportunity to see the latest products. Crowds gathered around 16/32 Systems to see Xenomorph 2, a superb 3-D rendering program, and Prism Paint 2, possibly the most powerful paint package released on the ST.

Videomaster Falcon also generated a great deal of interest on the HiSoft stand. Using a cartridge interface and the Falcon's 16-bit inputs and outputs, the program is capable of digitising video at up to 25 frames per second, in 64 shades of grey, and recording high quality audio.

Released on the day of the show, Studio Photo, a powerful image retouching and processing package, won many friends on the Compo stand while Club Cubase showed a final test version of Steinburg's Cubase Audio.

With products on view from companies such as System Solutions, Titan Designs, ST Club, CGS and Prospero, along with bargains from Golden Image and Warpzone PDL, this event promises much for the future."

Tickets

- ◆ Tickets cost £5, £3 for entry after 2pm
- ◆ Children under 16 are free when accompanied by an adult
- ◆ Atari ST computers free if being brought to the Compo stand for a repair or upgrade!

Bristol show

To be held at the Hilton International Hotel, Bristol, Saturday July 30, 10am to 5pm.

London show

Taking place at the Novotel, Hammersmith, West London, Sunday July 31, 10am to 5pm.

Maps and detailed instructions will be included next month

ATION PHONE 0487 3582

ST REVIEW ISSUE 28 JULY 1994



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ENTERPRISE

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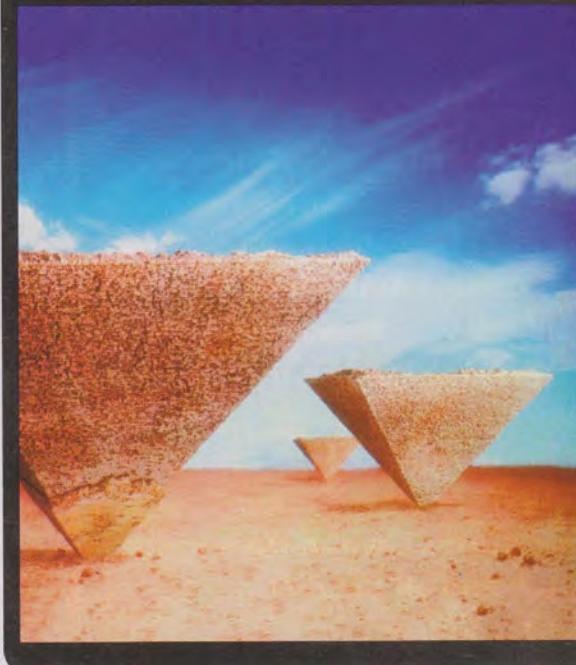
COVER FEATURE PAPER POWER

PAGE 23

More and more of you are using an Atari computer for home and small business needs – headed notepaper, compliments slips, CVs, leaflets, booklets and the like. The problem is that DTP packages tend to have too steep a learning curve while most word processors are underpowered in the features department. Is there an in-between?

The solution lies in the use of a document processor, and this issue we concentrate on *Papyrus*, HiSoft's latest release. Turn to page 23 for the start of our three-page review.

And to give you a *real* feel for the program, we've managed to fit a very usable demo onto this month's cover disk. The tutorial starts on page 13 – enjoy...



ST SOURCE

... the source of all information! This is where you'll find the best tutorials, your opinions and our answers to your questions...

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How can you copy a number of files other than individually? Find out with *Beat The System*...

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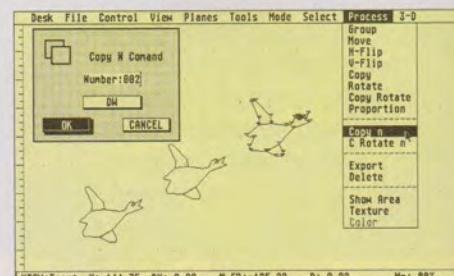
Speak your mind on our Letters pages – it's time for another £25 special!

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Missed any of our issues? No problem – just order them from here...



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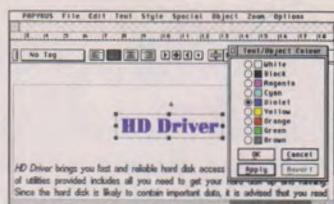
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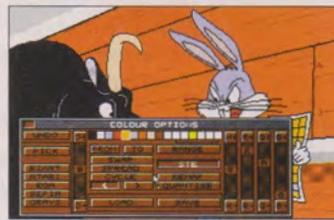
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**NEXT
MONTH'S
ISSUE ON SALE
JULY 5**



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He's back - find out what Larry is up to on page 52.



ON THIS MONTH'S COVERDISK **PAPYRUS GOLD**

... an excellent, usable demo of HiSoft's German gem! All facilities are active so that you can explore every option of this fine-featured document processor. Import text from your favourite word processor and images from your art package and then use *Papyrus'* layout facilities.

Our three-page tutorial starts on page 13...

Plus

- See page 16 for...
- HPChrome* - the latest version of this marvellous DeskJet utility!
- MemWatch* - find out where your RAM goes with this useful program...
- EpsJet* - use your DeskJet with older programs.



SCREEN SCENE

Time to be entertained...

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LOOKING FOR A BARGAIN

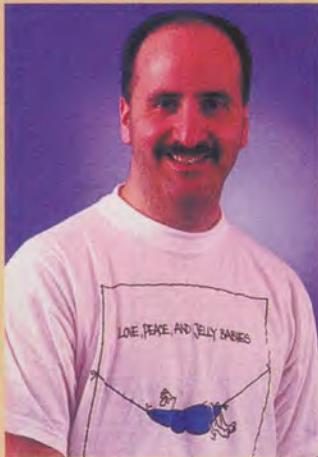
It has been an interesting month, starting with a trip to the Fez-A-Bit Atari Show in Berlin and finishing with a visit to a computer auction! One at a time...

Fez-A-Bit was quite an eye-opener as you'll gather from the show report on page 8. Germans certainly know how to take their Atari computers seriously and while you can't buy an ST in Germany, that doesn't stop the tens of thousands of owners from wanting to continuously improve their existing machine. Hardware accelerators, software upgrades, new programs – and the chance to sit down with the programmer of your favourite piece of software and discuss it with him. This informal show offered all this. In many respects, the Atari shows that Europress Enterprise has been sponsoring in this country have a similar potential, including the possibility of German and American software authors being in attendance. After all, both Dan Wilga of Gribnif and Brad Koda from Best Electronics were at the recent Newcastle and Glasgow shows. The question is: will you move to a different computer just because you believe that Atari will not be bringing out a further machine? If the answer to this is "no", then try to make it along to either the Bristol or London Atari Shows on July 30/31. Check out the details on pages 2 and 3; I'll provide you with more information next issue.

What does a computer auction have in common with Atari computers? Not a lot – and I'm not going to claim for a moment that a major North London auction had a job lot of Falcons going cheap! In fact, there were no specific Atari parts at all... but there were SCSI hard disks, printers, modems and VGA/SVGA monitors. Prices? How about £95 and £195 for a brand-new DeskJet 520 and 560C respectively? Or £70 for a boxed 14,400 baud modem? Or a new Maxtor 120Mb SCSI hard disk for £50? There really are some Atari-compatible peripherals up for grabs at auctions – and before any advertisers complain, I'll add that you have to accept the inherent risks of lack of guarantee and no aftersales back-up. But if you really can't stretch to that new inkjet printer then keep an eye out in your local paper for an auction – you never know!

I forgot to mention this last issue so I'll put it in now: did anyone bet on Mighty Falcon in the Grand National a couple of months ago? If you did, you'll be less than impressed with me reminding you that it fell at the 13th...

Vic Lennard
Editor



MORE SOLUTIONS

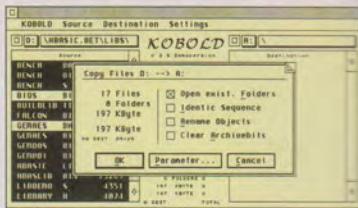
System Solutions (081-693 3355) are now importing the Bernd Lohrum Public Domain and Shareware CDs from Germany. Bernd Lohrum currently have two Atari-specific titles on release and both are in stock. The programs are supplied both in executable format, ready to run, and archived for use on bulletin boards.

Disk one contains a wide variety of programs sourced from Germany and throughout the world, sorted into various categories including Applications, Demos, Editors, Emulators, Games, Languages, Packers, Virus Killers, MiNT and Utilities – and there's even a Falcon-specific section. Emulators includes a ZX81 emulator with over 130 games.

Disk two is the latest release from Bernd Lohrum and, as with the first disk, everything has been grouped into convenient headings, including Clipart, Sounds, Applications, ACCs, Databases, Packers, Printer, Programming, Tools, Utilities and Falcon. The Clipart section alone contains 63 folders, each with fifty to sixty .IMG files covering a wide range of subject areas. The sound section features a selection of MIDI programs as well as numerous .MOD files and both chip-based and sampled sounds in a number of different formats.

Both CDs are available now at a cost of £29.95 each. Although the programs are Atari-specific, the discs themselves can be read on PC and Macintosh systems, so they might still be worth getting hold of if you don't own a CD-ROM drive but have access to one.

Kobold v2.5 (£59.95) is now available. As you will be aware from using last month's cover disk demo version, Kobold is a very fast file copier, copying or moving megabytes of data on a hard drive in a matter of seconds. It is also invaluable for copying data to and from floppies where it still outruns TOS by a mile! In addition to the features present on the demo, the full version of Kobold can be installed to run transparently under TOS (or your chosen alternative Desktop), patching TOS's slow copy, move, delete and format functions. It can also perform its tasks in the background, if you have a multi-tasking operating system installed, and can be run as a desk accessory. It fully supports high density drives as well as extended density where appropriate. Kobold has its own script language that allows routine tasks to be automated. Check out our full review in next month's issue.



Fast mover – Kobold takes over where TOS falls down in the file management department!

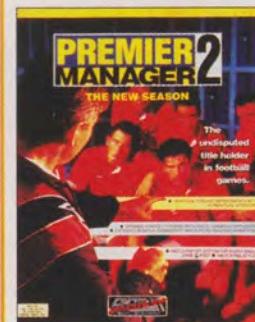
GREMLIN'S IN THE SYSTEM

Gremlin Graphics has just released the ST version of Premier Manager 2, the follow-up to the highly successful 1992 release, Premier Manager, which continues to ride high in the charts. This latest release features a host of extras and promises data disks for the German, French, Italian, Scottish and Spanish leagues.

You start off managing a struggling team in the Conference League and hopefully progress to managing one of England's top



In charge – Premier Manager 2 is perfect for anyone who's a football manager wannabe!



clubs. Should you be successful, you move into Europe to manage one of the world's most flamboyant teams. Realism is the name of the game in Premier Manager 2, where you are involved not only in picking the best 11 men on the day, but also in negotiating wages and contracts – and everything else associated with running a top club. Premier Manager 2 is out now, priced at £25.99.

Final report – the full-time details include a breakdown of your team's performance.

SEX ON CD

The publisher of the adult magazine *Fiesta* has entered the computer software market with its first release - *Fiesta CD-ROM*. Billed as "The hottest action from the UK's top selling adult magazine now on interactive CD-ROM", the compact disc compilation features over 2,300 pictures of women in various poses and stages of undress, 800 of which are in 24-bit true colour. Although aimed at the PC market, with Windows 3.1 being needed to run the on-board software, the CD-ROM images are in industry-standard graphic formats and so can easily be viewed on most computer systems. This includes any ST with an ISO9660-compatible CD-ROM drive, a standard that all current drives will read.

Galaxy Publications, which is expecting sales of 10,000 to 15,000 units at £49.95 each, has taken the precaution of publishing the title in accordance with the Obscene Publications Act. Consequently, the product carries an "18 and over" warning on the back of the packaging. However, it should be pointed out that this is not an official classification which means that such a warning has no legal force. In theory, there is little stopping it being sold to minors especially as many sales will be through mail order.

DRAWING THE LINE

What does and does not constitute pornography was highlighted recently. Seven police raids were initiated by ELSPA's (European Leisure Software Publishers' Association) Crime Unit after investigations into the production and supply of illegal CDs. The illicit software seized contained both pirated and pornographic material, including some CDs with up to £20,000 of business and

Soft porn pictures now available on CD-ROM...



*Taking cover
- discs like
Fiesta
CD-ROM are
likely to
lead to calls
for new
legislation...*

*It would be ideal if
all entertainment
software were to
carry the same age
rating system.*

Roger Bennett, director
and secretary general, ELSPA.

to duplicate than the more common silver discs, they are more likely to be used by companies dealing in pirated and pornographic software. Anyone coming across such CDs should contact ELSPA immediately.

CLASS SYSTEM

ELSPA's self-regulatory classification scheme for computer games came into effect last month. Despite a few teething problems, it seems to have been more or less universally accepted by ELSPA members and has been welcomed in the trade. The rating sticker shows four boxes marked: 3-10, 11-14, 15-17 and 18+. Ticks are placed against the age groups for which the product is judged suitable, and crosses against those deemed unsuitable. Retail chain Future Zone has already stated that they are to

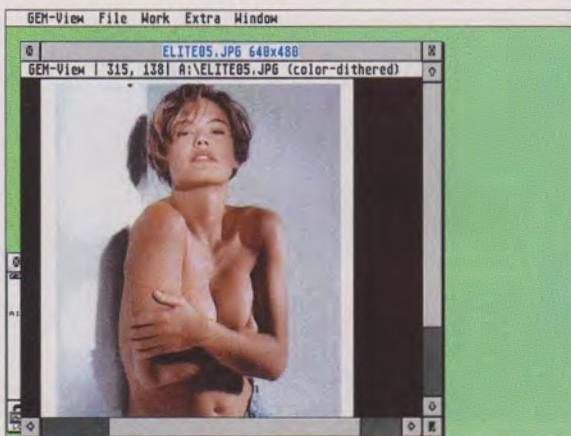
*We think there is
a market for this...*

David Holliday,
managing director, Galaxy.

stop stocking products that do not carry the ELSPA sticker. There are already over 50 games across all platforms that conform to the new guidelines and ELSPA's 60 or so members have until August to bring the rest of their products into line.

When asked to comment on the release of *Fiesta CD-ROM*, Roger Bennett, Director and Secretary General of ELSPA said: "So far as this sector of the industry [the publishers and distributors of interactive entertainment software] is concerned, we would not wish to be associated with any product which has not been classified". He added that publication in accordance with the Obscene Publications Act would not be sufficient if moving images were involved but the lack of these on *Fiesta CD-ROM* means that it is not covered under the Video Recordings Act and the voluntary age rating scheme does not apply. However, he voiced concern over the need for a collective responsibility for entertainment software, especially as the ELSPA guidelines state that the publishing of software "must be responsible rather than purely legal".

The commonly held view within the industry is that the release of such material is likely to lead to increased calls for new legislation. Such new laws would most likely force the producers of entertainment software to submit their products for classification. This would result in increased costs to the industry, something that would inevitably be passed on to the consumer. ELSPA can be contacted on 0386 830642 and Galaxy Publications on 0376 510555.



*Fine line -
public
domain
libraries
have been
carefully
vetting the
inclusion
of images
like this
on their
disks.*

OVER THE RAINBOW

Falcon-specific programs may be rare, but a true colour art package has now been added to the *élite*. *Rainbow* incorporates a number of features not available in other packages, perhaps the most significant being the ability to change resolution (and even monitor type) from within the program without losing your work. The current version comes complete with a built-in Photo Studio and the next version promises numerous other suites.

Rainbow boasts eight tool types, each of which has several different modes and effects. In addition, the user interface can be re-arranged to your own preference. File loading is very fast and a built-in driver for the Tabby graphics tablet is included. Available now at a cost of £29.95; more information from JCA Europe Ltd on 0734 452416.

BERLIN BLITZ!

**Manfred Bäcker
and Vic Lennard
report on an
"informal" Atari
show with a
difference...**

The Atari scene in Germany is alive and thriving in a way that no other country can match, perhaps down to the way in which the machine has been marketed over the years. Apparently Atari Germany took a leaf out of Acorn's book and ensured that all educational institutions had STs installed and then offered discounts for students. The end result is that most German programmers are now in their early 20s and continue to support a platform that now consists of Falcons and TTs only.

The Fez-A-Bit Show in East Berlin on May 7 and 8 was certainly an informal affair, with trestle tables and tablecloths being the order of the day. Yet 40 of Germany's main companies exhibited, including Compo, Digital Arts, Omikron, Overscan and Rom, all of whom currently have products available in the UK. An old East German concert hall was the venue and some 2,000 square metres of floor space was available – necessary when you consider that 5,000 people turned up for the two-day event!

HARD LIFE

Perhaps the biggest surprise was the number of tower systems scattered around the stands. German Atari users really do like their machine to look good – and perform well.



Packing a punch – MW Electronics' PAK 68/3 can unleash awesome power on an unsuspecting ST...

MW Electronic was showing off the Medusa (see box) and a rather interesting ST/STe accelerator called the PAK 68/3 that boasts either a 68020 or 68030 processor clocking at 16 and 33 MHz. This comes as standard with 32Kb of RAM cache and offers an optional 68882 coprocessor for high performance. Trying out the 68030-based version with NVDI installed, screen redraws were lightning fast – our test statistics showed a nine-fold increase in general graphics handling and about the same for the actual processor. Price? The basic 68020 board weighed in at about £140, the 68030 with coprocessor at £290. Perhaps we'll see this in the UK soon...

Compo had the T-Phone Voice Mail system up and running, complete with telephone. The software allows you to program in a variety of speech segments and then select



Popular show – some 5,000 people flocked to the Fez-A-Bit show held in an old East Berlin concert hall.

FALLING STAR

Star Micronics has just announced major cuts in the retail prices of its entire range of printers. These are in addition to reductions that took place earlier in the year. Star's Annette Tarlton said: "These aggressive prices emphasise further Star's long standing reputation for value-for-money printers. We've already seen a significant surge in demand as a result of these new prices".

The LC-100 drops from £199 to £149, making it the first colour printer to break the £150 barrier. The LC24-30, LC24-300 and LC24-100 all come down by £50 to £249, £299 and £159 respectively while the LC24-20II takes a massive drop of over £100 to £189. Similarly, Star's laser printers have seen a significant reduction with the LS-5 at £519 and the LS5-TT coming down from £999 to £749. The final reduction is on the SJ-144 thermal printer (reviewed in issue 26) which now retails at £379.

which ones are played back according to a simple script. Impressive, but expensive at around £170. Overscan also had a prototype of the Afterburner accelerator for the Falcon, a 68040-based board that supports up to 64Mb of RAM. At the moment it appears that this will only fit into tower systems – the board is quite substantial as our photograph shows.

THE SOFT APPROACH

One software had various pre-release programs on view. Arabesque 2 is nearing completion and has become a very impressive vector graphics

program. Admittedly we were working with it on a Medusa, which would make 1st Word Plus look fast, but rotating a set of grouped items was as simple as grabbing a corner arrow and moving (see step-by-step box). Second up was That's Write Classic which will be known as Write ON! 2 in this country, the long-awaited follow-up to its cover-mounted cousin. This boasts Speedo font support without the need for SpeedoGDOS to be loaded which means that Write ON! 2 will happily run in 1Mb of memory and still leave you with 300Kb free. Features include support for your printer's internal fonts, on-line help, macros...

MIGHTY MEDUSA

A hands-on experience with a Medusa is one that leaves a lasting impression! This 64MHz 68040-based beast has an unbelievable performance – at a price. Around £3,200 would have bought you a Medusa with an ET4000 graphics card (1024 by 768 pixels with 256 colours and a refresh rate of 74Hz), the ST input/output card, 8Mb of FastRAM and a 340Mb Quantum hard disk, all stacked up in an impressive looking mini tower.

Performance? Have a quick look at the table, which is a comparison with a TT boasting 4Mb of ST-RAM, 16Mb of TT-RAM, a 520Mb hard disk and a VME-Bus Crazy Dots II graphics card – in other words, as powerful a TT as money can buy – against a bog-standard Medusa. No, the Medusa is not a mass market machine – but it's nice to have a computer to aspire to!



Towering high – a Medusa could be bought over the counter for a cool £3,200!

Task	Medusa T40	Atari TT
Loading Calamus SL	4	11
Loading a test document into Calamus	8	28
Printing at 600dpi to a LaserJet 4 from Calamus	30	88
Importing an 8.5Mb TIFF into Calamus	31	159
Reorganising a 34,424 record database in Phoenix 3.0	176	625
Rendering a picture of St. Paul's Cathedral in DynaCADD	170	790

All times in seconds.



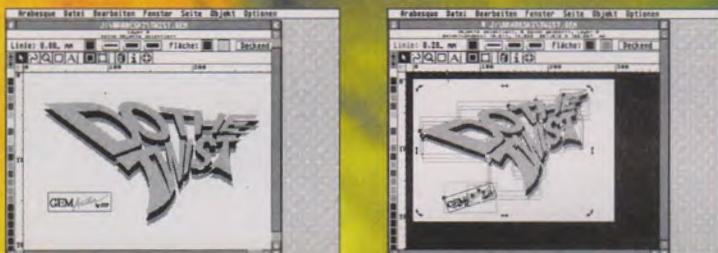
True colour – Star's LC-100 colour printer is now available for less than £150.



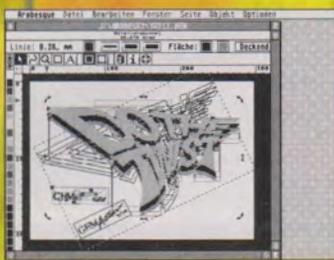
STEP BY STEP GUIDE

DO THE TWIST!

Arabesque appears to have matured into an impressive vector graphics program. Here, a graphic is made to do the twist the easy way...



1 Take an innocent graphic, quietly minding its own business...



3 Now grab one of the corner arrows, start turning and...



4 ... voilà! One rotated graphic in all its glory.

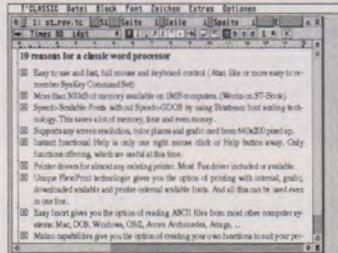


Grrrrr - Fez-A-Bit had more than its fair share of Jaguars as should our shows at the end of July...

enhancer, which is now GEM-based and much easier to set up – simply set the corner co-ordinates and centre the screen with the mouse.

Omkron used the interesting angle of having an artist working with PixArt and a pressure-sensitive graphics tablet. The on-screen "water" paintings were then printed out in colour for visitors to take away with them. Clever! Rom Software were showing the latest version of Papyrus (see full review on page 23), complete with German spell-checker. This appears to be one very good program and deserves to do well in the UK under HiSoft.

SoundPool, who designed Steinberg's Cubase Audio hardware add-ons, had *Audio Master* on show, a professional two-track mastering program complete with cue sheet, spectrum analyser and digital equaliser, the latter offering a choice of high and low shelving, bandpass and notch filters. Priced at around £170, or £400 with the optional digital interface, SoundPool still have no UK



What's in a name - the top left legend may say "T'Classic" but this will be Write ON! 2 in the UK...

distribution. While Digital Arts had no new products on show, it was impressive to see the programmers sitting and discussing their software with interested end-users.

GERMAN STYLE

The Fez-A-Bit Show was living proof that Atari computers do not need the strength of a manufacturer behind them as long as the owners wish to continue upgrading both their hardware and programs. The high-end user finally has a truly professional machine – yet seeing ST software running on a Medusa T40 makes you forget that you are still looking at a machine that uses an Atari operating system. On such a platform, *Arabesque 2* will probably out-perform the likes of *Corel Draw* and *Illustrator* on the PC and Mac.

The distressing part is the difference in market between the UK and Germany. 5,000 people turned up in a quiet East Berlin neighbourhood and yet a similar show in the UK would be hard-pressed to get 500 people through the door. Perhaps we should start to ask why...

IN BRIEF

- **Software On Demand**, the company responsible for EDOS (Electronic Downloading Of Software), closed down at the end of May. The system, which was used by John Menzies and several independent retailers, read software from laser disc and dumped it to either disk or tape with the retailer only paying for the number of copies made. Without the need to carry stock, EDOS was an ideal system for distributing items that are difficult to source – such as ST games. The demise is being blamed on lack of support from software publishers; a number of interested parties are said to be considering buying the company.

- **Amstrad entrepreneur** Alan Sugar is rumoured to be one of a number of interested parties considering buying Commodore's Amiga technology following the collapse of the company last month. The parent company's decision to go into voluntary liquidation is rumoured to have been taken in order to protect them from possible legal action by a third party which, if successful, would have seriously impaired its ability to continue trading. Meanwhile, Commodore UK continues to trade as normal.

- **Floppyware** is a new licenceware label set up by Floppyshop to support Atari software authors. It operates on a similar basis to other licenceware schemes with a sizeable chunk of the purchase price going directly to the authors. The range is reputed to be very selective and consists of two levels, the first of which, **Floppyware Gold**, is up and running. This comprises of products that are said to be as good as full-price commercial releases but at a cost of £3. Although biased towards games, serious users are also catered for. About a dozen titles are currently available with several others expected within the next couple of months. Send a blank disk for a full catalogue to Floppyshop, P.O. Box 273, Aberdeen AB9 8SJ.



Fire engine - Overscan's Afterburner promises scorching performance from a tower-mounted Falcon.

NEWS UPDATE

PD AND SHAREWARE Report by Nial Grimes

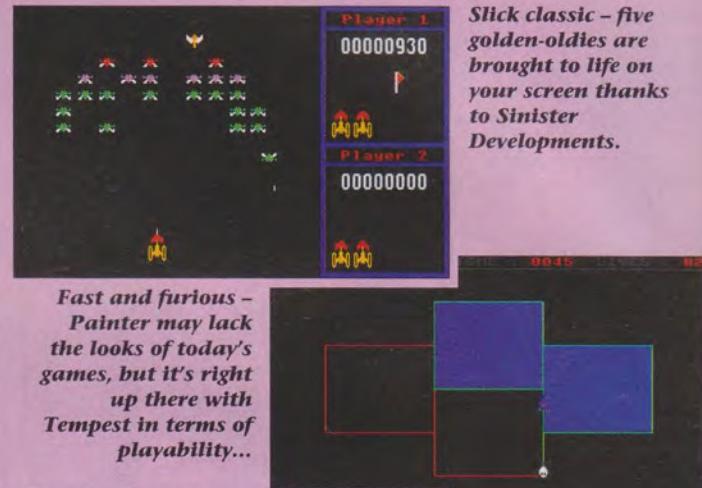
If the thought of *Tempest 2000* on the Jaguar has given you a taste for the old arcade classics, this month has something very special in store. Sinister Developments has rolled out a whole collection of rewritten arcade games so close to the originals that the designers themselves would probably have to look closely to tell the difference. Five titles are available in all – *Invaders*, *Asteroids*, *Centipede*, *Galaxian* and *Painter* (an often neglected game, but one which is very playable none the less).

On a slightly more practical note, *MasterBrowse 4* is slowly beginning to make its way across from the States and looks set to become the be all and end all of replacement desktop file viewers. It's compatible with several different flavours of operating system – including *Mag!X*, *MultiTOS* and *Geneva* – and also manages to fix a few of the problems with earlier versions.

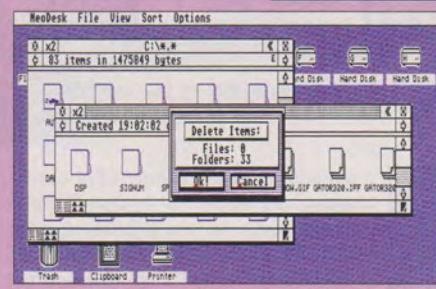
And talking of bug fixes, several Falcon patches have appeared on the net over the past few weeks. *TOS4-Trap* monitors for illegal calls to the operating system and fixes them on-the-fly, thus making *NeoDesk* and several other programs a little more Falcon friendly. *Floppy Fix*, on the other hand, aims to solve some small incompatibilities when using PC formatted disks, and Atari's *Steel Talons* can be persuaded to talk to a standard joystick with the help of *AceFix* – if they ever get around to releasing the game itself that is!

And finally this month, *OCR* – the superb public domain optical character recognition system – has finally been translated into English. The documentation is still in its original German state, but the program itself is very intuitive and you can get hold of a copy from Goodman International on disk number GD.2254.

News of all the latest commercial, shareware and public domain upgrades...

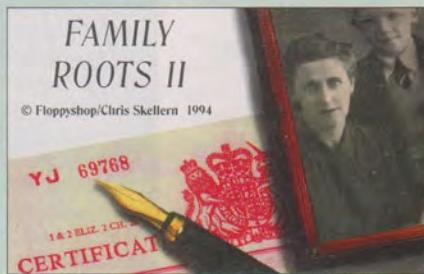


Fast and furious – Painter may lack the looks of today's games, but it's right up there with Tempest in terms of playability...

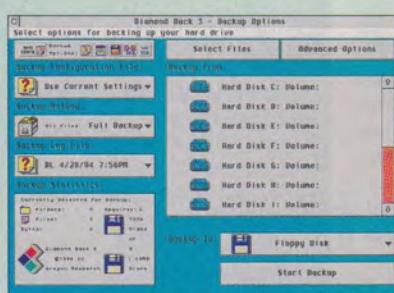


Be gone, bugs – deleting directories is now possible under NeoDesk thanks to TOS4-Trap.

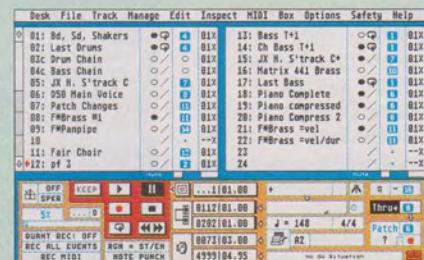
Ancestral heritage – Family Roots now has a new manual and supports modern printers.



Crystal clear – hard drive owners won't want to miss Diamond Back 3...



Still sequencing – both SMPTETrack and EditTrack can be upgraded to "platinum" status.



COMMERCIAL Report by Ofir Gal

For hard disk owners, the good news is that *Diamond Back 3* has been upgraded to v3.02 which irons out a few minor bugs and offers improved compatibility with tape drives and the Falcon. The cost is the usual HiSoft (0525 718181) fee of £4 to Silver Support customers and £5 to others. Gold Support customers get the upgrade free of charge.

Family Roots, the genealogy program that can help you trace your ancestry, has finally moved to version 2. The new version now supports most printers, including the Canon Bubblejet and Hewlett Packard range, and sports a new printed manual plus a large number of minor enhancements and bug fixes. All that's missing is support for non-standard resolutions on the TT and Falcon. To upgrade, return your master disks and a £10 upgrade fee to Floppyshop (0224 586208).

If you work with either HiSoft BASIC 2.10, Lattice C 5.60 or Devpac 3.10 and *Mag!X*, you'll be pleased to hear that a fix has been found for the menu bug. Send a blank disk and a stamped, addressed envelope to System Solutions (081-693 3355) for the fixed version.

Remember Hybrid Arts? The software side is now run by a company called Barefoot Software which has upgraded its *SMPTETrack* sequencer to version 7, codenamed "Platinum". There's a long list of enhancements and improvements and the program is now Falcon and TT compatible. The upgrade from any version of *SMPTETrack* costs £79 from Digital Village (081-340 3440). Call for information on upgrades to *EditTrack*.

Xenomorph should be available by the time you read this. Version 2 now features a new GEM interface, a new toolbox, *MultiTOS* compatibility, bump mapping and coloured lights! Upgrade cost is £70 from 16/32 Systems (0634 710788).

Finally, CGS has a new PhotoCD module for DA's *Picture*. Priced at £39.99, it simply slots into the modules folder to add .PCD file compatibility.

System Solutions

Computers

520 STfm - 1,2,4Mb	£Call
1040 STE - 1,2,4Mb	£Call
Printers - Deskjet etc.	£Call
TT 030 - 32Mhz, 2Mb	£899
Matrix 32Bit Graphics Card	£999

Please call for System Quotes

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ST System, CD-Rom, Translator, ExtenDOS, power cable	£299.00
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Lohrum Vol 1(PD/Shareware)	£29.95
" Vol 2 (PD/Shareware)	£29.95
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Midi files and .Mods (Music)	£TBA

Falcon Add-ons

Falcon Wing 0Mb	£49.95
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Falcon Wing 14Mb	£Call
BlowUp 030 - Software	£15.00
BlowUp 030 - Hard 1	£49.95
BlowUp 030 - Hard 2	£69.95
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Comms Software	
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T28 Mhz Accelerator	£189.95
1.44Mb Floppy Drive Kit	£99.95
The Translator	£69.95
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ICD Link II	£89.95
ICD Pro Utils	£39.95
ST(fm/e) Tower	£189.95
Falcon Tower	£159.95
Tabby	£49.95
Falcon 030, 32Mhz, 4Mb Hdd, M/Tos	
Speedo Gdos, Works	£795.00
As above, 120Mb Hdd	£895.00

To order and for further information
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System Solutions
Windsor Business Centre,
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Fax: 0753-830344

or come to our London Showroom at:

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17-19 Blackwater Street,
London, SE22 8RS

Tel: 081-693 3355 Fax: 081-693 6936

All prices include VAT

For small items under £50 please add £3.50 P&P

Large items over £50 add £10.00 courier charge

Monochrome Monitors

The award winning SM14 is a perfect replacement for the Atari SM124/5 monochrome monitors: it exceeds Atari's original specifications. The 14" high resolution, paperwhite FST (Flatter, Squarer Tube), gives a perfectly centred, crisp, sharp image without blurring at the edges.

The SM14 comes without, and the SM14s with, a speaker. The SM14f is for the Falcon. A Tilt and Swivel stand comes as standard.

The special version for STfm/Mega ST installed with Overscan, the screen enhancer, gives a 40% bigger display.

All monitors come as a plug-in-and-go unit, complete with Atari plug, and no adaptors are necessary.

"Essential Buy, 90%"

ST Review, May 93

without audio	SM14/f	£129.95
with audio	SM14s	£149.95
	OverScan ST	£39.95



ATARI ST
ESSENTIAL BUY

MiniS - Hard Drive System

The MiniS Hard Drive System comes with drive capacities ranging from 40Mb up to 1800Mb. This full SCSI system is hardware compatible with all Atari computers, Amiga, Mac, PC etc. They are unrivalled in size, noise, speed, and style and come with a thru port for expansion. It is the only Hard drive awarded an Essential Buy of 92% - Atari ST Review Christmas '93, and a Gold Award of 93% - ST Format Feb. '94

★ Quiet fan ★ Dual SCSI port ★ Device Number Switch ★ Internal Power Supply 100-240v ★ Small (2.5x6x8.5in) (WxHxD) ★ Smart and tough plastic case ★ 2 Year Warranty on all drives ★ Now with HD-DRIVER FREE

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40Mb	£199
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Please add £20 to ST(FM/e) if the ICD Link II is required.
Heavy duty professional cases with 60W Power Supply, add £50.
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ATARI ST
ESSENTIAL BUY

GOLD AWARD
ST Format

Falcon 030 Systems - 32Mhz

The Falcon is fast becoming the preferred choice for 8 track digital recording, with powerful programs such as Cubase Audio using it to its full potential. The DSP chip opens up a whole new world of Sound and Graphics. System Solutions now supply 32Mhz Falcon 030 computers from stock.

PowerUp2 is a brand new 32Mhz accelerator for the Falcon, available now. PowerUp2 doubles the CPU

clock speed and does not take up the internal expansion slot.

We supply systems for Music, Desk Top Publishing, Image Manipulation, Animation, Desk Top Video, fax & modem use etc. Please phone for your personal quotation of a tailor-made Falcon 030 System.

PowerUp2 kit

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PowerUp2 fitted

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Falcon 030, 4Mb Ram,
with PowerUp2 fitted

£599.00



Magic - Multitasking Operating System

Definitely the most exciting product this year is Magic - Multitasking Operating System. Written by the same programmers that brought you NVDI and the replacement desktop EOS, Magic is likely to become the standard by which all other Atari operating systems are judged. Magic runs on all Atari ST/STE/Mega and TT computers with 512Kb, but 2Mb Ram is recommended for a useful working system. Not only

does this system run several programs at the same time, but it has been so highly optimised that running one application under Magic is actually faster than under normal TOS.

The Falcon version is expected for later in the year.

Magic (Intro price)

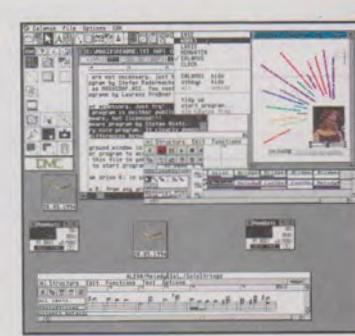
£59.95

Magic and NVDI

£89.95

Magic and Kobold

£99.95



NVDI

NVDI replaces the Atari display routines. Screen updates with NVDI are 3-10 times faster. Works with all TOS versions on all Atari ST, MegaST, TT, and Falcon 030 computers.

Cubase and Notator compatible.

Compatibility is remarkable and we have yet to find a program that is not compatible with NVDI!

ST Review Issue 16, August 1993.

NVDI version 2.5

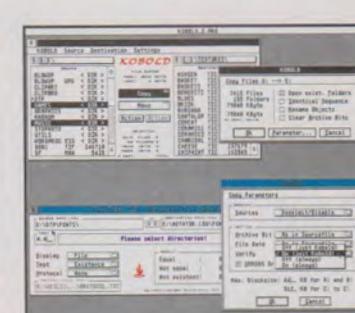
£49.95

Kobold

Kobold is a high speed file manager. Its unique handling of the Atari file system gives unrivalled speed when copying, moving and deleting files. Copies 1000 files, (10Mb) in 45sec, (GEMDOSE 5:35min). Use Kobold for Backups, Formatting Floppies, Move/Copying, Updates, Timed Jobs, etc.. It also includes a script learn function to automate repetitive functions. Can be run as an .ACC or .PRG

Kobold 2.5 (Intro Price)

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ATARI
WORKSHOP

papyrus

GOLD

the power of words

Papyrus Gold is the new, powerful and easy-to-use document processor for all Atari ST/STe/TT and Falcon030 computers. Papyrus makes use of comprehensive text processing and DTP facilities to enable you to create, effortlessly, professional-looking documents, from single-page flyers to complete manuals.

Papyrus Gold contains advanced features such as English spell checker, powerful table handling, automatic table of contents and Index generation, master pages, footnotes and much more.



papyrus
ROM

Order Form

Please rush me Papyrus Gold for my Atari computer (with at least 2Mb memory)

- Papyrus Gold @ £129.95 + £3 p&p
- Competitive upgrade (see above) @ £89.95 + £3 p&p
- SpeedoGDOS @ £30 if ordered with Papyrus

Signed:

Please allow 28 days for delivery

Name:

Address:

Card No:

Expiry and Issue #:

Competitive upgrades

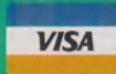
Users of Timeworks Publisher 2, Calligrapher, Calligrapher Gold or Wordflair 2 can upgrade to Papyrus Gold for only £89.95! Just send us your master disk(s) for any one of these packages (which we will return) together with the completed order form below to receive Papyrus Gold at a stunning price.

Cover disks not accepted.

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Phone between 9am and 7pm Monday to Friday to order using your Mastercard, Access, Visa, Switch, Connect etc. card. We will quote you a firm delivery date which will be no longer than 28 days and usually within 5 days. For goods in stock we can offer a next day delivery service for £6.



Papyrus is another power product from

HiSoft
High Quality Software

The Old School Greenfield Bedford MK45 5DE UK
Tel: +44 (0) 525 718181
Fax: +44 (0) 525 713716

How many times have you read a review and wondered just how good the program really is? Well here's your chance to find out first-hand with Papyrus, HiSoft's stunning new document processor...

Bring together a powerful word processor, DTP-like features and an up-to-date GEM interface. Then add features like moveable dialogue boxes, keyboard shortcuts and background printing, and what do you have? *Papyrus Gold!*

On the fonts side, it can use old-style GDOS and Signum fonts, giving you access to a vast selection of PD and commercial fonts. Additionally, *Papyrus* fully supports SpeedoGDOS and can make full use of its font scaling technology to display and print at any point size.

The program also boasts paragraph tags, RTF (Rich Text Format) and ASCII import and export, .IMG and .GEM image import, index creation, accurate text and graphic placement, micro-spacing, headers and footers, and much more.

The font panel allows access to all installed fonts and includes a preview mode. In addition to point sizes, you can also squeeze and stretch fonts using the W/H field, although this works best with scalable Speedo fonts.

POWERFUL REEDING!

GETTING STARTED

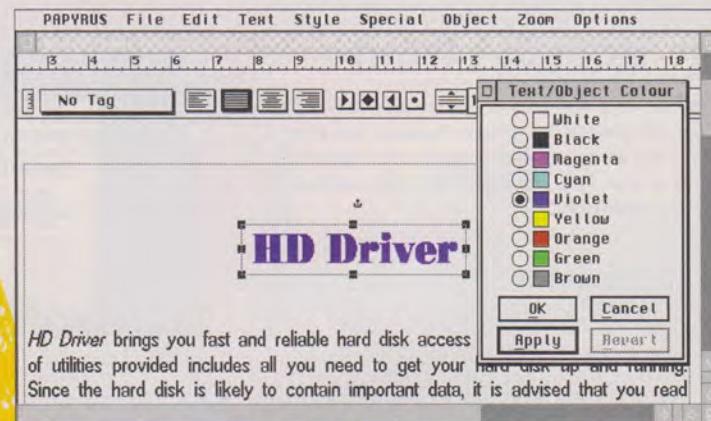
To try out the demo, follow these simple steps first:

- Use STRBAKUP.TOS to make a copy of the cover disk. Place the original in a safe place.
- On the copy, delete all folders and files except for the PAPYRUS.RSC, PAPYRUS.INF, PAPY_STR.APP and DESKTOP.INF files and PAPYRUS.TUT and FONTS folders. This will leave room for any new files you may create with *Papyrus*.
- If you're working with a hard disk, copy the above files onto the same partition.
- Double-click on PAPY_STR.APP to start the program.

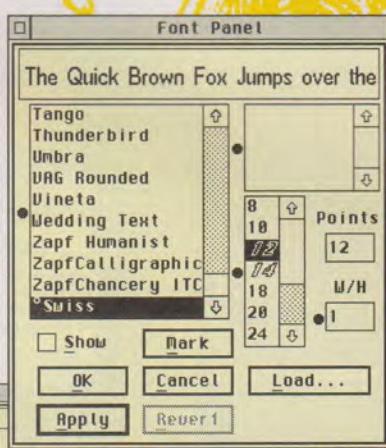
INSTANT GRATIFICATION

After a brief look around the various menus, you'll probably want to print our tutorial document. If you've substantially altered the program since starting up, then it's best to reboot. Otherwise, close any document you may have opened by clicking on the icon in the top left of the

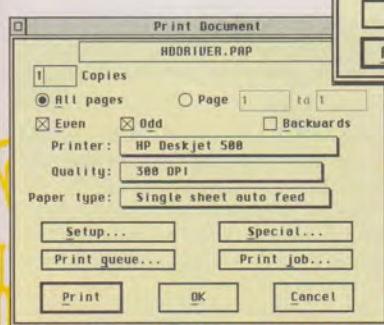
Any colour applied to text and mono images can be printed on a colour printer. This even works if you only have a monochrome monitor.



HD Driver brings you fast and reliable hard disk access of utilities provided includes all you need to get your hard disk up and running. Since the hard disk is likely to contain important data, it is advised that you read



Papyrus supports a large number of printers including colour ones. You can select the print resolution - lower values are much faster but do not produce the highest possible quality - and even create your own driver!



DEMO LIMITATIONS

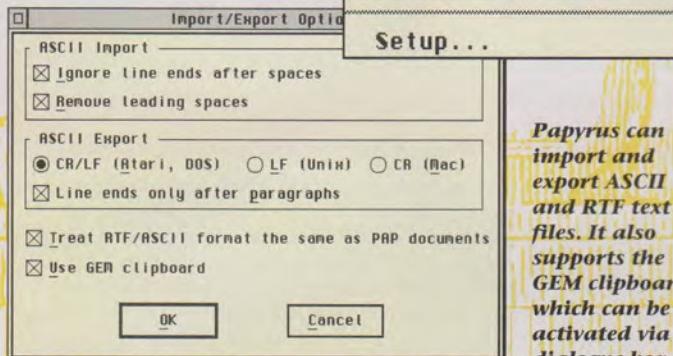
The demo version of *Papyrus Gold* is limited to printing single page documents and has the additional quirk of occasionally reversing letters "e" and "s". No features are disabled, allowing you to experiment and appreciate each and every aspect of the program.

Papyrus is really designed to work on a system with 2Mb of memory or more and a high resolution monitor. A hard disk is also recommended. In order to bring you a working version of the demo, we had to restrict the number of fonts to an absolute minimum; adding any more fonts requires at least 2Mb. If you have a colour monitor or TV set, you'll need to use the mono emulator supplied on the cover disk. In fact, your system will have automatically started up in mono. If you have a STe and would like to have smoother scrolling, run NC_MONO on your disk. If you're using a hard drive and a 1Mb system, disable all AUTO programs and desk accessories.

When used with SpeedoGDOS, *Papyrus* allows you to select fonts of any point size. However, the demo version on the cover disk only contains Signum fonts which have a fixed point size. They do, however, provide outstanding print quality as I'm sure you will find out.

If you're working with a high resolution mono monitor, or if your system has more than 1Mb of RAM, switch the printing mode from TOS to Direct. This is available from the Options menu under Compatibility and results in much faster printout as well as the ability to print in the background.

The flexible zoom modes can be configured to taste. You can zoom into a small section of the document or zoom out to a full page preview.



Zoom	Options
20 %	^F1
33 %	^F2
50 %	^F3
87 %	^F4
117 %	^F5
200 %	^F6
300 %	^F7
400 %	^F8
Full page	^<
Normal	^E
Printer resolution	^>

Papyrus can import and export ASCII and RTF text files. It also supports the GEM clipboard which can be activated via this dialogue box.

DIALOGUE WINDOWS

You will have noticed that Papyrus uses a modern style user interface. Dialogue boxes are no longer modal which means that they are displayed in a window instead. All buttons feature keyboard shortcuts, accessible by pressing <Alternate> and the underlined letter in the button.

Each dialogue box or window features four buttons. In addition to the standard "OK" and "Cancel", which work just as you'd expect, there are two more labelled "Apply" and "Revert".

- **OK** confirms the changes and closes the dialogue window,
- **Cancel** does just that and closes the window,
- **Apply** is similar to OK in that it confirms the changes, but does not close the window,
- **Revert** cancels any changes and returns the dialogue box to the same state as when it was first opened.

The advantage of Apply is that it allows you to try out various settings such as page layout, font type and size, without having to exit the dialogue box. Any changes take effect on the background document window. That's technology for you!

document window. Now select Open from the File menu and load the demo document *HDDRIVER.PAP* which you'll find in the *PAPYRUS.TUT* folder. This is part of the user manual for HD Driver, a hard disk utility from System Solutions, which was created using Papyrus. If all goes well, you

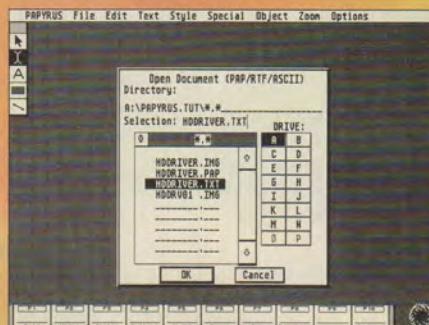
should now have the first page from the *HD Driver* manual displayed on your screen.

Next you have to load the printer fonts. Select the Font Panel from the Text menu which displays the font selection window. Click on Load which leads to another window

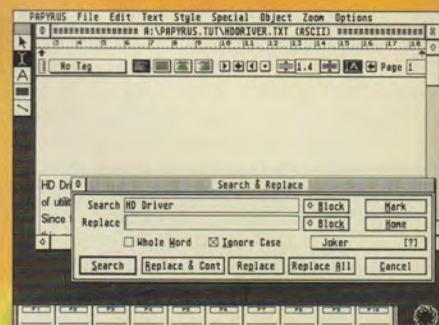
STEP BY STEP GUIDE

MANUAL LAYOUT

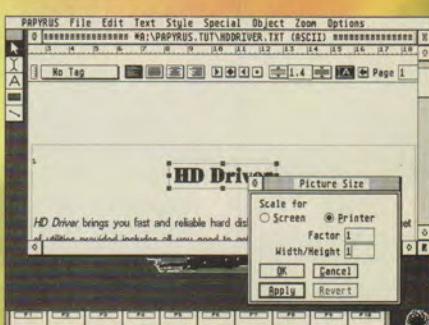
When Ofir Gal had to write the manual for *HD Driver*, he chose Papyrus for the job. So here's a quick guide to importing a text file, laying it out and adding some graphics...



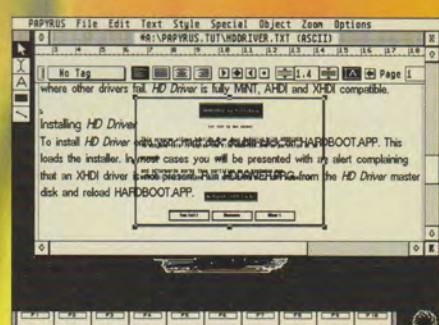
- 1** Make sure all windows and documents are closed. Select Open from the File menu and use the file selector to find the file *HDDRIVER.TXT* which is located in the *PAPYRUS.TUT* folder.



- 2** Once the file is displayed on-screen, select "Search & Replace" from the Text menu. Enter "HD Driver" as the search string, click once on the Home button and then click on Mark.



- 6** Drag the image with the mouse and place it inside the dotted line. Double-click on the image to bring up the Picture Size window and make sure that both Factor and Height/Width ratio are set to 1. Click on "OK" to exit.

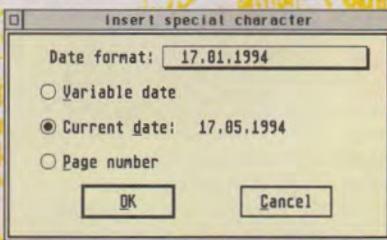


- 7** Move further down the document to the second sub-heading and double-click just above it. Now insert the *HDDRVO1.IMG* image file. Double-click on the image and set the Factor to 2, leaving the Width/Height ratio at 1.

This dialogue box determines what is displayed on screen. You may remove all border boxes and image anchors or decide to view all control codes. Prefer Imperial measurements? Just click on the Units pop-up menu and select Inches.



entitled Font Families. Now click on Add Fonts to bring up the file selector. There should be three sets of fonts in the FONTS folder, each set being placed in a separate folder namely: 9_PIN for Epson-compatible 9-pin printers, 24_PIN for Epson-compatible 24-pin printers and 300DPI for most laser and inkjet printers. Open the appropriate folder,



select one of the two files in it and click on "OK" to exit the file selector. Papyrus will now ask you whether you wish to load all fonts in this font family; click on Load All. Next, a second alert will ask you whether to mix the printer fonts with the current font family. This time click on "Mix". Finally click on "OK" to exit this window. Note that if you If you need to insert the date into a letter, just select Special Characters from the Special menu.

now use the Save Options facility in the Options menu, you won't have to do this every time you print. If you happen to have other Signum fonts and at least 2Mb of memory, you could add more fonts in a similar way. Papyrus is now ready to print!

Select Print from the File menu to bring up the print window and choose the printer driver to match your printer and print quality, adjusting for fanfold paper or A4. That's it – click on Print and prepare to be amazed by the quality!

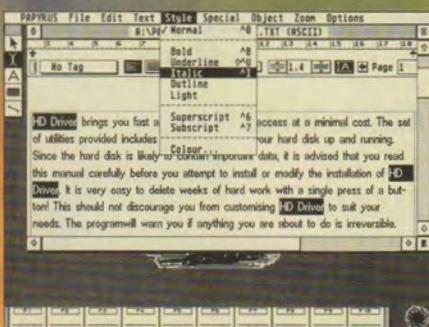
GENERAL DISK PROBLEMS

In the unlikely event that your cover disk won't load or gives you any other problems, disconnect any peripherals, switch your computer off for at least 20 seconds and try again. If this doesn't solve the problem, return your disk, with a stamped addressed envelope, to:

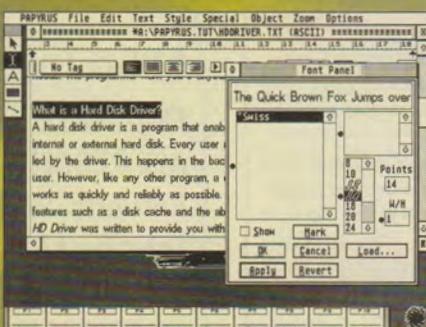
P.C Wise Ltd,
Dowlais Top Business Park,
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Mid Glamorgan CF48 2YY.

PC Wise will test your disk and send a replacement as quickly as possible. You can contact the PC Wise Helpline with any urgent problems concerning faulty disks on 0685 350505 between 10.30 am and 12.30pm, weekdays.

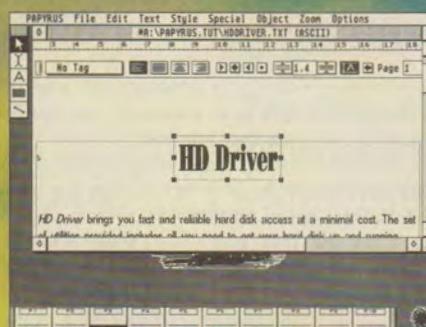
Should you require technical help, call the ST Review Helpline on Friday afternoon between 2pm and 5pm on 0625 859766.



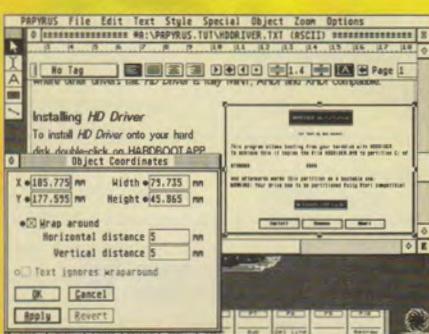
3 Select Italic from the Style menu. This will italicise the phrase "HD Driver" throughout the document. Now highlight the sub-heading "What is a Hard Disk Driver?"...



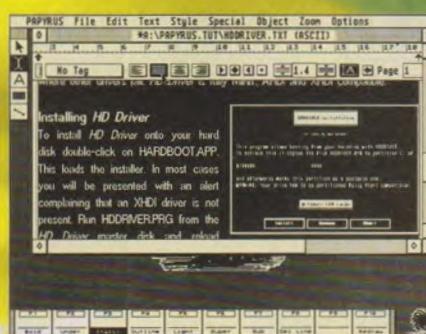
4 ... go to the Font Panel, select a point size of 14, click on "OK" and then select Bold from the Style menu. Repeat this process for the second sub-heading "Installing HD Driver".



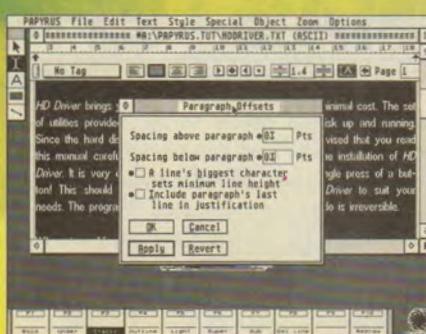
5 Press <ClrHome> to move to the top of the document and press the <Return> key five times to give space for the title image. Select Insert from the File menu and load in HDDRIVER.IMG.



8 Drag the image to the right side of the screen, select Coordinates from the Object menu and enable Wrap Around. Set the horizontal and vertical distances to 5mm and click on "OK" to make the text wrap around the image.



9 Double-click anywhere in the text to return to text mode and press <A> while holding down the <Control> key. This selects the whole document. Select the justified text icon on the text ruler.



10 Finally, go to the Special menu and select the Paragraph Offsets item. Enter "3" at both top fields and click on "OK". This adds extra spacing between paragraphs. Follow the instructions in the tutorial regarding printer fonts and set-up to achieve the best printed results.

MORE UTILITIES...

Even with Papyrus on the cover disk, we've managed to find space for some excellent extras!

MONOPACK v1.2

PUBLIC DOMAIN • BY HANS HARROD • MEDIUM RES.

Run mono programs on a colour monitor or TV...

Although this was on issue 20's cover disk, we've included it again for the *Papyrus* demo. If you're using an STe, you can install the special version of the emulator on your copy of our cover disk – this uses the blitter chip for faster scrolling.

To install the mono emulator on the boot sector of a floppy disk, run *BMAKE1_2.TOS*, follow the instructions and reboot. If you do not wish to run in mono emulation, simply hold down <Shift>, <Control> or <Alternate> keys at boot time.

MEMWATCH V1.2

FREWARE • BY DAMIEN M. JONES • ANY RES.

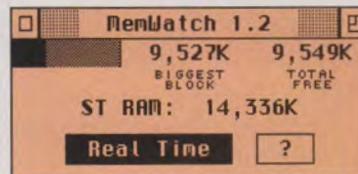
Keep a watchful eye on your memory...

To run *MemWatch* as a program, rename it as *MEMWATCH.PRG* and double-click. To use as an accessory, copy the file *MEMWATCH.ACC* to your boot disk and reset the computer.

MemWatch displays your system's use of memory and indicates how fragmented it is – in other words, what is available but not actually usable. The display size can be altered by clicking on the "full" icon at the top right

hand corner. If you leave the *MemWatch* accessory open you'll see how programs eat away at your precious RAM.

Find out what happens to your precious memory with MemWatch...



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HPCHROME v1.5

SHAREWARE • BY MARTIN DRYDEN • ANY RES.

Accurately control your DeskJet's output...

HPChrome is a great utility that can print in glorious colour on a colour DeskJet or a mono one using a colour kit.

To get started, run *HPCHROME.PRG* from the desktop. Click on **File** to load an image and select the output quality: Draft for a quick, rough print or Best for maximum quality at a slower speed. There are various settings for printer type, image positioning, landscape or portrait mode and more – you can even crop the image and use the **View** button to quickly display the file on-screen. When you are satisfied with the settings, simply click on **Print**. For the £5 registration fee you'll get a full manual – cheap at twice the price!

HPChrome 1.5 © Rufus 1994	
File	CLINT.TIF
Size	5.33 x 3.33in
Position	X:1.66 Y:1.54
Crop	328 x 288
Draft	Normal Best
Colour	View Options
Exit	Print

EPSJET v1.0

FREWARE • BY DAVID L. BAILEY • ALL RESOLUTIONS

Emulate an Epson MX80 on your DeskJet...

EPSJET is a useful utility for older programs without DeskJet support – simply use an Epson FX80 or MX80 driver instead at a cost of just 25K. Install this emulator by copying *EPSJET.PRG* into your AUTO folder and rebooting, or by simply double-clicking on it. The program may conflict with print spoolers so always try it on a clean set-up first.

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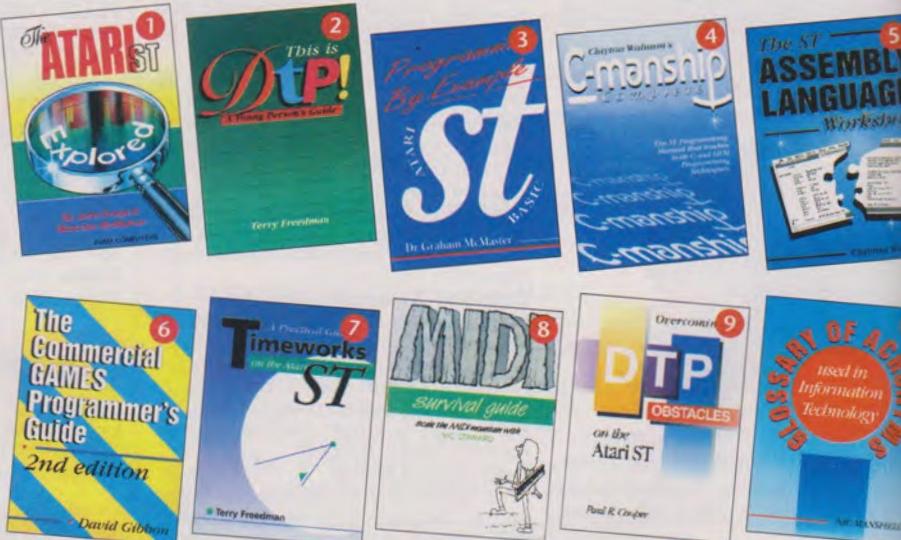
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TECH TALK

Raising the standard...

Following on from a valid point previously raised by Andrew Wright, I would like to use my column to urge all programmers who are reading this to study the *Atari Interface Style Guide* as published in the *Atari Compendium*. The arguments for a standard interface are stronger than ever. The look at *Windows and System 7* in the last issue easily proved the benefits of a standard.

The lack of standards for the ST has allowed some creative ideas to flourish but at what cost? German developers, fed up with Atari's reluctance to lay down the rules, have been following the style guide published in the Atari programmers' bible - *The Profibuch*. UK developers, led by HiSoft, have been following an unwritten style guide that strongly conflicts with the German one. When Atari finally decided to take the plunge and publish a style guide, all they managed to do was create total confusion among programmers.

There are plenty of examples, the best being some of the keyboard shortcuts suggested. While German programs adopted <Control>+<W> to cycle windows and <Control>+<U> to close a window, Atari have recommended <Control>+<W> for closing a window. The use of <CirHome> key combinations for moving up and down a document or an image are a minefield - it is almost impossible to decide what to do. I just checked a few of my favourite programs to see what keys are being used. HiSoft opted for <Alt>+<T> and <Alt>+ to jump to the top and bottom of a document. Several German programs, Everest among them, use <Shift>+<CirHome>, while others such as *Papyrus* use <Control>+<CirHome> for top of document and <Shift>+<CirHome> for jumping to the end!

It's time that someone laid down the rules, but the question is who? The developers at Atari are preoccupied with the Jaguar and communication between UK, German, North American and other developers around the globe is still difficult, even with the advent of modems and the so-called information "super-highway". Talking of which, I have recently participated in several discussions on the subject on both the local CIX BBS and on the Internet. Everyone agrees that standards are a wonderful thing, but as soon as someone suggests an idea, someone else always disagrees. Nevertheless, something has to be done.

It seems to me that since Germany is now the source of the majority of software products for the Atari ST range, its opinion should dominate this discussion. On the other hand, the standards laid down by Atari seem to make sense as well. I suggest that the two should be merged into an internationally-recognised interface standard, with the intention that it is followed rigorously by programmers. I will organise discussions on this area, and if a consensus is reached I'll publish the results in *ST Review* and any other magazine that shows interest.

For those of you who are interested in contacting Ofir by email, he can be reached at ogal@cix.compulink.co.uk. In a recent trip to an Atari show in Berlin, the editor saw several companies displaying results obtained through Ofir's *GEMBench* program, including statistics on their official literature. Good programs travel far...



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Following on from last month's DeskJet 520, Andrew Wright welcomes its colour cousin, the 560C...

Inkjet printers have become extremely popular in the last year or two and prices have dropped significantly. At the front of the pack has been the Hewlett-Packard DeskJet, the printer that has done more for home users and low end DTP than any other. Five million of the little beasts were sold in 1993, of which 40% were the colour versions, a figure claimed by HP to represent more than all the other makes of colour printer combined.

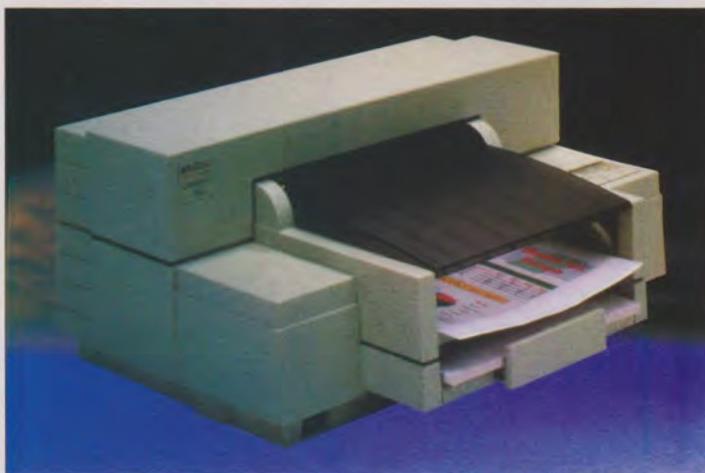
Hard on the heels of the new monochrome DeskJet 520, (reviewed in last month's issue), comes the DeskJet 560C. Not only do you get the same 600 by 300 dots per inch (dpi) resolution and resolution enhancement technology (RET) added to the 520 but you get high quality (300 by 300 dpi) colour output on plain paper, glossy paper or transparency. Like the 520, it has better envelope printing, more internal fonts and a three year back-to-base warranty.

The 560C features the same twin cartridge system as the older 550C, making it possible to switch quickly between colour and black and white modes. It is the same lovable, bulky shape as previous models, weighing in at 6.6kg and being 18 inches (443mm) wide, 15 inches (389mm) deep and 8 inches (206mm) high. The paper feed holds up to 100 sheets of normal paper (up to 135 gsm), 60 sheets of transparency paper or 20 DL sized envelopes.

Print speeds are three pages a minute or so in text mode and anything up to four minutes or less for a



full colour A4 page. Running costs are likely to be average for printing text but colour pictures can work out a little on the expensive side if you're not careful. A new colour cartridge retails at around £26 (the black ones are slightly less) and with careful use it will produce around 180 mixed black/colour pages. With more colour and less black ink, this could drop to 60 or so pages. In other words each page will cost you somewhere between 15p and 45p. The printer comes with mono and colour cartridges, power supply unit and plenty of documentation, including a handy



High resolution colour printing, but few Atari programs can get the most out of it at the moment.

COLOUR MADE EASY

KEY FACTS

Product:

DeskJet 560C

Company:

Hewlett Packard

Contact:

0344 360000

Price:

RRP - £509; Typical - £400

SYSTEM
Minimum Memory:

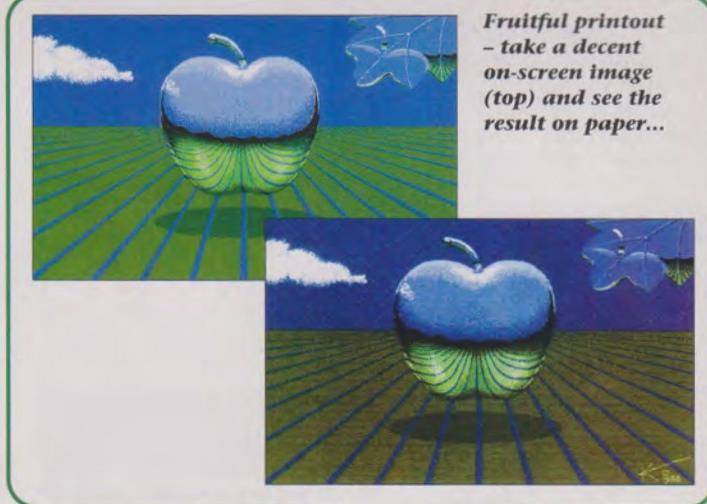
0.5Mb

Resolution:

Any

Computer:

Any



Fruitful printout - take a decent on-screen image (top) and see the result on paper...

booklet on the best way to use colour when designing documents.

While the new DeskJets are backwardly-compatible with older models, older printer drivers are only capable of driving them at 300 dpi. In fact, the only way to get 600 by 300 dpi output is to use the printer's internal fonts. As the only ones accessible from the control panel are Courier and condensed Courier, you'll run out of options pretty quickly! Specially written drivers will be needed for most text-based applications like word processors and there simply aren't any yet.

The upshot is that most word processor and DTP users will have to be content with 300 dpi for the time being, although the combination of the RET and HP's improved 51626A cartridge means that print quality is still significantly better due to reduced spray and better head positioning.

Any Atari application with DeskJet/Plus/500 or LaserJet 2 drivers should drive the 560C in black text mode and this includes most word

processors, DTP packages and many other GDOS programs. For colour work you'll need a program with 550C printer drivers or a dedicated colour output program such as the FaST Club's *Imagecopy Colour* or *Imagecopy 2*. DA's *Layout*, DA's *Vector*, DA's *Picture* and *Chagall* all have 550C support, though I had a lot of difficulty in matching the colour on the screen in DA's *Vector* with that printed on the page.

Slight over-inking can occur on photorealistic images, making programs like *Imagecopy 2* worth getting as they'll save you ink in the long run by offering features to adjust colour balance and ink levels. Most computer generated output, such as colour vector graphics and pages from programs like *Pagestream*, is crisp and bright. If you need top quality, spray-free text and colour graphic output, the DeskJet 560C offers good value for money and excellent all round performance. With street prices already dipping under the £400 mark, it makes a winning combination.

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Papyrus brings the smooth, sophisticated power of a Macintosh document processor to the ST. Nial Grimes sand dances his way through text-crunching heaven...

INSIDE INFO

At one time, software compatibility was a very clear cut issue; you

shoved it in the disk drive and it either worked or it didn't – easy! Nowadays however, with Falcons, replacement operating systems and GEM enhancements flying around all over the place, the situation is a lot more complicated. So, how does *Papyrus* survive amongst the third party software jungle?

Well, naturally it is fully Falcon-compatible and runs in almost any screen mode from ST High upwards. NVDI is compatible to the point of being essential and as you would expect, *MultiTOS* and *Mag!X* are fully supported. *GEMRAM* and *WinX* don't seem to cause too much trouble either, although the *Universal Item Selector* won't work with *Papyrus* when *SpeedoGDOS* is in memory (try saying that after a game of *Tempest 2000!*).

Nature does have a funny habit of compensating for these things though – with *UIS*, *SpeedoGDOS* and half a dozen other utilities in memory there isn't a lot of room left on a 4Mb machine anyway!

Tests performed on an early version of *Geneva* weren't that encouraging, but recent releases could well be OK. If you do use *Geneva*, it would be a good idea to confirm compatibility before laying out any dosh.

Drag-and-drop text editing makes the clipboard largely redundant!

WORDLY WISE

For many years, ST owners have been forced to accept second best when it comes to word processors. While there's little doubting the power of *Protext* or looks of *Calligrapher*, somehow a blend of the two has been sadly missing from the Atari market – until now. *Papyrus* comes to us on direct recommendation from the German ST market and attempts to redefine document processing as we know it. Lofty claims indeed, but can it deliver the goods? Read on...

SETTING THE SCENE

After years of using quirky word processing software, *Papyrus* comes as something of a surprise – it follows industry standards! At the top of each document window you will find tools for formatting text and the all-important ruler. Tabs can be added by dragging icons to the required position and margins are equally easy to fiddle with.

It's an interface style that has been squeezed directly from the jaws of the Macintosh (right down to the keyboard shortcuts) and is so natural you end up wondering why it has taken so long to appear on the ST.

Perhaps the biggest step forward over word processors of yore is block handling. Instead of battling with Edit menus, cut and paste operations are united in one smooth-flowing operation – highlight the text and simply drag it to a new position.

Of course, the Edit menu is still tucked away upstairs in case you do need it. Even compatibility with other machines shouldn't be much of a problem because *Papyrus* speaks Rich

Text Format (RTF) like a true native.

Naturally, several documents can be opened at once and all dialogue boxes have been forced into windows. This opens up the way for two new buttons, in addition to the usual "OK" and "Cancel": "Apply" puts the current settings into action without removing the dialogue box and "Revert" takes you back to square one. It's little things like this that makes *Papyrus* so special and it's evident that real thought has gone into the design of the interface – how many other programs are intelligent enough to remove a dialogue box when you double-click on a radio button? In common with every other part of the package, the interface is fully configurable to suit the time of day, your style of life or the colour of the cat – yes, it really does seem to be that comprehensive!

It would be silly to say that these bells and whistles have no impact on the speed of the program, but in truth they will probably save you more time than hasty screen updates ever would. Even so, NVDI is well worth considering to keep things moving along comfortably.

DO YOU WANT TO TAG ALONG?

As a document processor, *Papyrus* has more to offer than mere text crunching. In fact it makes a point of sitting as close as it possibly can to a desktop publisher without losing any appeal as a word processor. Three

types of fonts can be used and mixed freely – *Signum*, *GDOS* or *SpeedoGDOS*. It works well with all three types, although the *Speedo* option does nudge memory requirements very close to four megabytes. There's really no need to cringe at the thought of using bitmapped fonts again either, because the output using *Signum* typefaces is just superb – check out our demo on this month's cover disk!

Control over this higgledy-piggledy mixture of different typefaces falls to the Font Panel. Here you find a list of all the available fonts together with point sizes and styles. New families can be installed from within the package and when it comes to bitmaps, the sizes in >



Every single part of the program, from screen display to memory usage, can be tailored to your requirements.

KEY FACTS

Product:

Papyrus Gold

Company:

HiSoft

Contact:

0525 718181

Price:

£129 (£159 with *SpeedoGDOS*)

SYSTEM

Minimum Memory:

2Mb (Hard disk highly recommended)

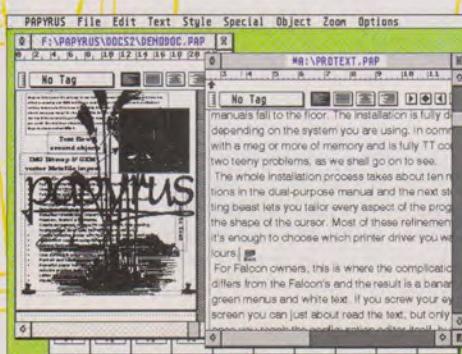
Resolution:

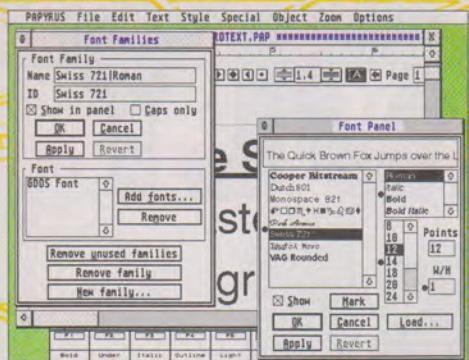
640 by 400 pixels minimum

(ST High/Falcon)

Computer:

Any

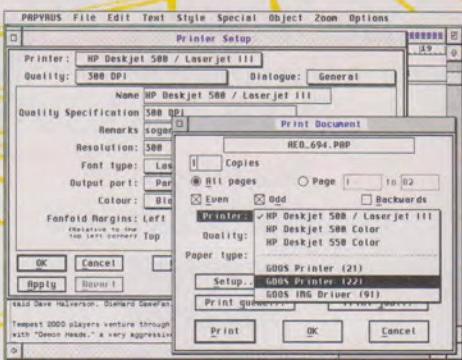




Live editing of typefaces and point sizes is possible without leaving the Font Panel!



The picture window can import and crop images before laying them into a document.



With background printing and numerous effects, Papyrus flattens the competition!

memory are highlighted appropriately. Of course, the "Apply" button comes into its own when you are dealing with fonts – just highlight a little chunk of text, open the Font Panel and find the right size without even leaving the dialogue box!

Naturally, once you've found the right font and size, it can be tagged and used instantly anywhere within a document. *Papyrus* also takes the tagging concept one stage further by allowing a table of contents to be built automatically. It's just a case of deciding which style tag will be used

for sub-headings, and hey presto – a perfectly formed list of topics complete with page numbers! Adding mono graphics into the equation is a piece of cake too. Quite a wide range of formats are supported including STAD, Degas, .PIC plus the proprietary .IMG and .GEM. Once in memory, pictures can be cropped and sized easily or scaled to suit the resolution of your printer; text flow around graphics is also an option. Internal drawing tools are limited to the standard range of lines and boxes and, sadly, the clipboard will not



Papyrus – a pack with punch...

co-operate when it comes to these objects.

BIGGER AND BETTER

Although somewhat uniquely presented, the features described so far are really nothing new in the ST market. However, *Papyrus* does come up with a few tricks that simply aren't available anywhere else. Table creation is one area that springs instantly to mind – you would not believe how complicated it is to put together a decent table with *Calamus* or *Didot* and yet, it's only a few seconds' work with *Papyrus*.

Tab-separated text can be turned into a table with two mouse clicks (no kidding!) and once a table is displayed on-screen, the size of the cells can be adjusted with alarming ease.

You can even perform calculations over "cells" in a table. It's almost as if the frame becomes a miniature spreadsheet within the document and columns can be totalled, percentages worked out – the sky's the limit! Negative figures even appear in red!

Mail merging is equally slick. Although no database file formats are supported directly, almost any variation of ASCII fields can be fed through without problems. To be honest, the mail merge facilities do fall short of *Protex*, but it is a lot easier to use – no programming required around here mate! And before you start having nightmares about the amount of time a mail merge will take, it's time to introduce another unique *Papyrus* feature – background printing!

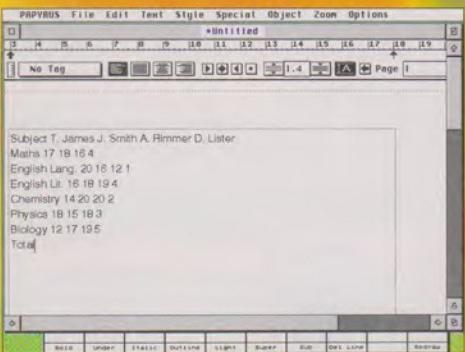
In fact, the print facilities leave many other word processors out in the cold. Most of the drivers support colour where available and at last someone seems to have realised the importance of reverse order printing!



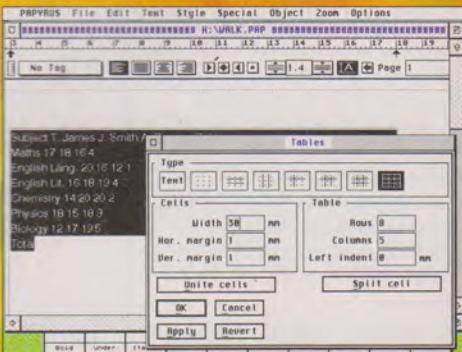
STEP BY STEP GUIDE

LAYING THE TABLE

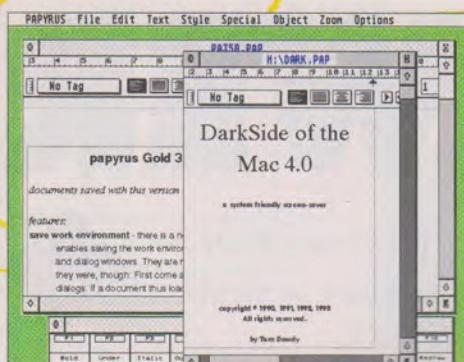
Papyrus is almost unique in its ability to deal with tables and calculations. To give you an idea of just how divinely easy the whole tabling process is, let's put together a small league of exam results... (it's that time of year... Ed)



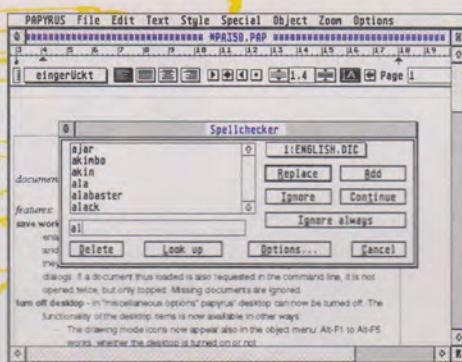
1 Begin by entering the text and figures for your table. Use a <Tab> to separate columns and press the <Return> key to start a new row.



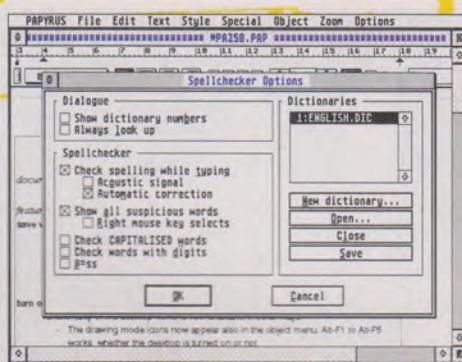
2 Hold down the left mouse button at the start of the text and drag downwards until the whole lot appears in reverse video. Now click on the "Table" menu option and choose an appropriate layout style.



Rich Text Format is fully supported and works like a dream – even the strange paper format is successfully recognised.



The Papyrus spell checker is raring to go – all that remains is to add a proper English dictionary!



Spell-as-you-type is supported, although it does seem to be less than perfect at the moment...

SUMMARY

GOOD POINTS:

Powerful layout facilities
Highly configurable
Interface to die for!

BAD POINTS:

No Thesaurus
Dù sont les Macros?
Memory requirements

FINAL WORD:

"GEM was made for Papyrus. Without a doubt, the best looking document processor on the market, and with plenty of power to back it up."

print queue if something urgent comes up.

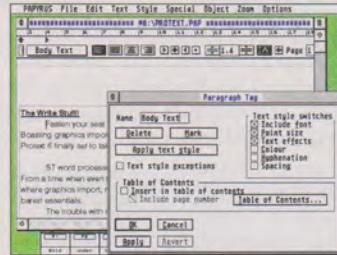
In common with all HiSoft products, Papyrus comes complete with a beautiful manual. The pre-production version included with our review copy was nicely written and even contains a dash of humour here and there.

As you've probably already gathered, Papyrus is pretty hot stuff, but add the master pages, indexing, micro-spacing, zooming, plus all the other features that there just isn't space to mention and you might just get an inkling of how hot...

DOCTOR FEELGOOD

It doesn't matter how good a word processor looks on paper, usability is the key to success, and Papyrus screams through this vital area with flying colours. You know it's got to be good when the hardest part about writing the review is finding things to criticise!

In fact, the only serious problem beyond the lack of a thesaurus is some pretty monstrous memory demands. Without SpeedoGDOS to complicate things, 2Mb is perfectly adequate, but add those vector fonts



Oh what Calamus SL would give for quick tables like these!

and you are looking at 4Mb without any doubt at all. Speed isn't as much of a problem as it could be with NVDI on board, but there is still a case for Protect if you are into heavy duty text manufacture.

When it comes to new software, the question of stability always springs to mind, and Papyrus does occasionally fall over. The good news

is that every error encountered throughout the review period has been trapped, without fail. When something does go wrong, a dialogue box appears explaining the problem and then it's business as usual. Things are a little bit more entertaining with error trapping switched off, but let's face it, that really is asking for trouble!

At the end of the day, Papyrus could be one of the best things that has ever happened to the ST. It's certainly the first document processor to seriously challenge Calligrapher and "blown out of the water" is the phrase that springs instantly to mind.

There are one or two niggles remaining, but they pale into insignificance the minute your first self-calculating table appears on screen!

PERFORMANCE

OVERALL

EASE OF USE



DOCUMENTATION



EFFECTIVENESS

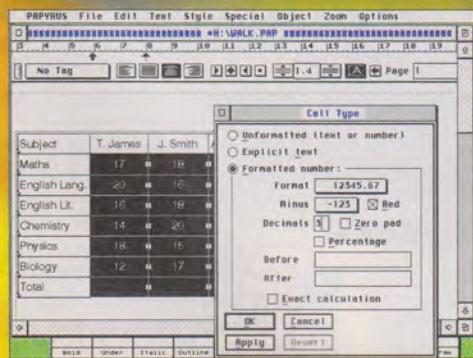


VALUE FOR MONEY

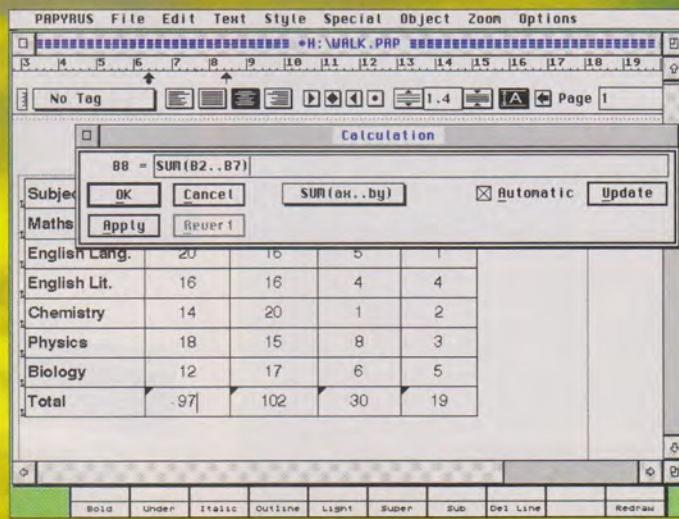


86%

Up to 64 pages can be reduced and printed on a single sheet of paper, and there's even an option to collate for reproduction. When it comes to background printing, the performance depends entirely on the processor you have lurking under the bonnet. It is possible to get on with a little typing in most cases, but the slowdown is noticeable no matter which machine you own. If you imagine MultiTOS, but a little slower, you'll have some idea of the delayed responses. On the bright side, documents can be deleted from the



3 When a perfectly presented table appears on screen, highlight all of the figures – including the totals boxes – and summon the "Cell type" dialogue box. Highlight the "Formatted number" button and disable "Zero pad".



4 Finally, place the cursor at the base of the first column of figures, open the calculation dialogue box and type "SUM(B2..B7)". Repeat the process for each of the other totals (C, D, E and so on) until your table is complete.

IVORY TOWER

In true step-by-step style, Graeme Rutt completes the building of his tower system...



WARNING!

Opening up your Atari computer invalidates your warranty. Unless you are certain of your own abilities, it is recommended that the following modification be carried out by a specialist.

Last month we left our tower system with the motherboard installed in the lower shell, the power switch rewired and the floppy disk mounted in the upper shell. This is a useful start and if you don't have a SCSI drive to install then most of the difficult work is done.

This month we're going to construct the keyboard kit, install the SCSI kit and look at the final assembly. Before we go on, I'd like to reiterate that the answer to a well-built tower is care, precision and time – never hurry! And remember: you're working with high-voltage circuitry. Always leave equipment unplugged from the wall and treat power supply components – especially capacitors and heatsinks – with great respect...

WELL KITTED OUT

The Lighthouse tower keyboard kits are designed to take the keyboard unit from your machine directly. Sadly, the Falcon keyboard has always been the weakest part of the machine so if you have the money, take my advice and buy a Mega ST keyboard. I'll leave it to your imagination as to what you can do



STEP BY STEP GUIDE

KEYS, PLEASE

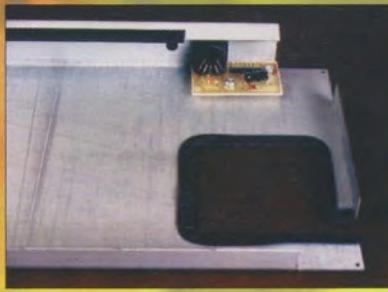
Time to take the Falcon's rather poor quality keyboard and place it in a rather neat casing...



1 The keyboard kit is the easiest part of the tower assembly – but it's still fiddly. Remove the kit from the packaging and take it apart; you'll find a two-part shell, a circuit board, a number of leads and fittings.



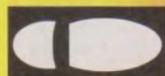
2 First you need to fit the internal keyboard lead into the lower inner shell. Plug the 3-pin rectangular connector into the motherboard's keyboard interface and screw the DIN plug to the shell from the outside.



3 Back to the keyboard kit. Insert the washers into the base and mount the small circuit board. This is attached from underneath with two screws and four plastic spacers. Fix the rubber edging around the mouse and joystick ports.



4 Use the two self-adhesive pads on the keyboard kit upper to hold the keyboard in place. Connect the keyboard lead into the small circuit board and screw the unit together. That's it – the keyboard unit is finished.



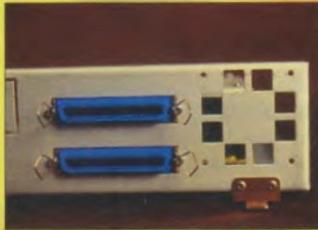
STEP BY STEP GUIDE

FIT THE KIT

If you have a SCSI hard disk or CD-ROM drive, then you'll need the special kit...



1 The SCSI kit comes with a separate power supply, internal and external leads and all the required fittings. For the purposes of this step-by-step, we're fitting a single Quantum hard drive into the tower.



3 After mounting the power socket bank, check and re-check the whole power supply mounting for short circuits. Then screw the two blue Centronics sockets into the back of the case.



4 Screw your SCSI unit(s) into the upper shell and connect them to the power supply and Centronics cable. Connection to the motherboard (after final assembly) is via the short cable provided.



5 Finally, put each shell into the appropriate outer and hook them together. Connect the floppy drive in the upper shell to the motherboard in the lower. Slide in the front cover and screw the case together.



6 The plastic inserts have been put in the front cover - the one for the floppy disk has been cut accordingly, which is a bit tricky - and the supplied feet have been stuck to the bottom. One completed tower!

with the Falcon's offering! The SCSI kit is also optional in that you only require it if you have a SCSI drive – or two – to install. It includes all the pieces necessary to fit up to four SCSI units to your tower.

Final assembly is one of the most important aspects of the whole operation – if you want a good looking tower that doesn't look like a diseased dalek, that is. Remember that it's important to take some time over this stage, thinking things out and working with a lot of care.

OPTIONAL EXTRAS

It's also worth thinking about any extras you might like with your tower. Karl at System Solutions is happy to give you hints and tips on fitting any kind of common or esoteric add-on – he'll be even happier if you happen to buy them from him!

As well as different kinds of keyboards – even PC-compatible ones – there are all manner of other extras you might like to consider: accelerators, graphics cards, PC emulators and so on. One of the big advantages of a tower is that your computer is no longer squeezed into

a little plastic case. And why stop there? Most drive mechanisms are of a standard size, so if you want to include a magneto-optical, floptical or CD-ROM drive, this should also be possible. Always check your drive first though – if it includes some sort of controller card, this could cause problems.

There is one alternative available direct from System Solutions. If you use your machine's cartridge port, take a look at the cartridge shapes. If they are "L" shaped or overhang the standard cartridge slot, it's important to tell Karl. He will then supply you with a keyboard interface that lays flush with the case – and tell you how to fit it.

IS IT WORTH IT?

These two articles will have helped you with the business of tower building and also given you a few insights into why a tower is a good idea.

There's no denying that fitting your entire system into a tower makes an astounding difference to your computer use. Gone are the six foot long desks covered with various grey boxes and a myriad of leads and

ribbon cable. Gone are many of the risks of accidental spillage and leads being pulled out.

A Tower System costs a little money, a weekend, requires a few tools and a small amount of manual dexterity. For many of you that is

likely to be a big pay back for a small layout.

If you follow our step-by-step guide diligently, double-check with the tower manual and take a lot of care, you should find that a tower installation is no great problem.

PRICING

Four different tower kits are available from System Solutions (081-693 3355 or 0753 818816), according to your computer type. Costs as follows, all prices including the keyboard kit:

STFM/STE: £199.95

MegaSTe/TT: £179.95

Mega ST: £179.95

Falcon: £179.95

General SCSI kit: £129.95

Keyboard kit only: £49.95

The ACC member companies carry a wide range of interesting products for you and your Atari computer. The co-operation between our companies gives you, our customer, many advantages as we can carry a wider assortment of goods and, through centralised buying and advertising, lower price levels. We don't know everything (who does?) but thanks to a wide general



knowledge and many years of experience of Atari hardware and software we can offer a high level of support. It is our goal to always offer pleasant and courteous service to all even if it concerns only the simplest of questions. If you need something you don't see on our list or have comments or tips about our products please contact your local ACC dealer directly.

FALCON	SEK	DKK
FALCON 4/0	7964:-	6995:-
FALCON 4/65	10295:-	8495:-
FALCON 16/0	15959:-	13295:-
MEDUSA T40	39995:-	33315:-
JAGUAR	2995:-	2495:-
AFTERBURNER 040	7995:-	6660:-

GRAFIK & DTP

DA's VECTOR	1523:-	1495:-
DA's VECTOR PRO	2290:-	1995:-
DA's PICTURE	1523:-	1495:-
DA's DTP BW	3057:-	2545:-
DA's DTP CD	5101:-	4250:-
DA's DTP TC	7656:-	6395:-
CALAMUS S	3595:-	2995:-
CALAMUS SL	4995:-	5995:-
SCANCOL+CHAG L	4325:-	3595:-
CHROMA STUDIO24	1995:-	1695:-
GRAFFITI GENLOCK	2412:-	1995:-

MONITOR	SEK	DKK
15" SVGA DIGITAL	4867:-	3995:-
17" SVGA DIGITAL	8677:-	7495:-
SPEED RES. CARD	2046:-	1695:-
SCR. WONDER PRO	535:-	445:-
SCR. SWITCH RES.	950:-	795:-
NVDI 2.5	695:-	595:-

TOWER m.m.		
FALCON TOWER	2395:-	1995:-
FALCON RAM-KORT	709:-	590:-
RAM-KORT 18/36+G	1395:-	1165:-
LOGITECH PILOT mus	295:-	295:-

HARDDISK		
3.5" CONNER 210A	2782:-	2318:-
3.5" CONNER 420A	3591:-	2991:-
3.5" CONNER 810A	7875:-	6560:-
3.5" CONNER 1060S	8626:-	7195:-

Prices subject to change without prior notice. All prices including Swedish and Danish VAT. Our customers are and will remain our greatest asset. WELCOME!

DAGGSKIMMER
Zenitgatan 56
S-212 14 Malmö
040-97 00 57

FALCON PRO CENTER
Väderlekstorget 12
S-418 32 GÖTEBORG
031-54 55 26/Fax 033-28 48 54

INDIGO 2
Montanagade 29E
DK-80000 ÅRHUS C
86-20 16 55/Fax 20 12 04

Floppyshop

Family Roots 2

Family Roots is a professional, yet affordable, package which is an invaluable aid to those researching their family tree. It is the culmination of five years' accumulated work which has included extensive research into the subject. Unlike similar products, Family Roots is not merely a customised database. It allows the user to link each individual into the family tree graphically on the workscreen, whilst allowing easy access to its integrated database where the data on each individual is stored.

Our popular custom written mouse driven interface makes the program easy to use for the beginner, whilst giving access to more powerful features needed by experienced genealogists. Another unique feature of our software is that new individuals can be added to any part of the tree. Whilst this is being done (anywhere within the tree structure) existing data is cross linked to take into account the relationship to others in the tree. A powerful search function allows fast cross referencing between individuals.

Family Roots 2 costs only £29.95. Postage is included in the UK, please add £1.50 for Europe (including Eire) or £3 for the rest of the world. Existing users will be able to upgrade their copy to the new version by sending back their master disk along with the £10 upgrade fee. Postage for the upgrade is included in the UK, please add £1 for Europe (including Eire) or £2 for the rest of the world. Credit card orders welcome.

Dept STR, PO Box 273, Aberdeen, AB9 8SJ
Credit Card Orders Only Tel/Fax: 0224 312756
Technical Helpline Tel/Fax: 0224 586208

Art Has Never Been So 'EZ'!

Despite the apparent decline in the ST market, Floppyshop remain firmer than ever in their support for ST users and intend to prove that innovative software which pushes the machine to its limits, is not a thing of the past. EZ-Art Professional is the result of three years' research and coding done in close association with a graphic artist and a number of other professionals within the industry.

EZ-ART PROFESSIONAL came about as a result of a comprehensive study of the top graphics packages on the ST and Amiga. We have dispensed with the limited size of the low resolution screen and given the user, perhaps the most comprehensive, yet simple to use, editing tools available on an ST.

The program is icon driven and includes a built-in Help feature to guide the user as to the function of each and every icon. It supports the extended palette of the STE, loads all common ST graphic formats, including Spectrum 512, as well as IFF (including HAM). Features include over 20 block effects, over 20 types of pre-defined shapes, 18 different tools and modes, a built-in 16 colour fill editor, font support, up to 10 workscreens. What's more, it even runs on a 520!

EZ-ART is out now and costs just £29.95. Postage is included in the UK, please add £1.50 for Europe (including Eire) or £3.00 for the rest of the world. Credit card orders welcome.

OVER 2,800 DISKS OF QUALITY PUBLIC DOMAIN AND SHAREWARE for the ST, STE and FALCON

Both our ST and Falcon catalogues are currently the most comprehensive available from any supplier. They are disk based and simple to use. They have a powerful search facility and can output to printer if required. Floppyshop are also distributors of the Budgie UK Licenseware range. For a free copy of either catalogue disk, send us a blank disk with a note of your name and address, stating whether you require the ST or Falcon catalogue. Alternatively you can send a Cheque or PO for £1.00 (50p if ordering with other software) and we'll supply the disk. Please make Cheque or PO (UK currency only) payable to Floppyshop. Major Credit Cards welcome. UK Postage FREE, Overseas Postage to: Europe £1.00 per order, Rest of World 10% of order value (min charge £2.00).

Fancy a low-cost solution to your data storage problems?

Mike Robinson certainly does...

SyQuest is a name that has always been associated with removable media thanks to its industry-standard 44Mb mechanism and cartridges. Recently, a new 105Mb model has been introduced that promises cheap media and performance approaching that of a standard hard disk.

SMALL AND NEAT

A 105Mb SyQuest cartridge measures just 3.5 inches – the same size as a floppy disk only three times thicker. The cartridge is inserted into the drive and a lever is used to lock it in. Once the disk is up to speed, a couple of seconds later, it can be used just like a standard hard disk.

The advantages of removable media are clear. First, you do not have to keep on buying larger hard disks; when you run out of space, you just buy another cartridge. If the computer is used by several people, each can have their own cartridge which can be booted from.

KEY FACTS

Product:
Minis SyQuest 105Mb

Company:
System Solutions

Contact:
081-693 3355

Price:
ST - £449
Falcon - £399

Bare mechanism - £289
Larger case - add £40

HD Driver software - add £10

SYSTEM
Any Atari computer

ARISE SIR QUEST!



Removable media is also an ideal back-up medium. By using a program like *Diamond Back 3*, you could back up almost 200Mb of data onto a single cartridge through the use of data compression.

HIGH PERFORMER

The drive is set up and installed much like an ordinary hard disk, by using AHDI, HD Driver or ICD Boot. Unlike the older generation of SyQuest drives, the new 105Mb model is surprisingly fast and doesn't feel any slower than most SCSI drives. It's certainly faster than the Falcon's built-in IDE hard disk (see table for more information).

The drive is slightly noisier than the average hard disk, but is extremely quiet when idle. In fact the fan noise is much louder than the drive itself! The larger case may not even

require a fan in the British weather; the drive remained cool even after days of spinning without a break.

WHAT YOU GET

System Solutions offer the new drive in a variety of packages. The SyQuest can be supplied with a Translator host adaptor for connecting to an ST, or with a Falcon SCSI cable and there is a choice of two cases. The larger, metal unit measures 28cm by 16cm by 8cm and has enough space for a standard 1/4 height SCSI hard drive. It features two LED indicators, one for

The 105Mb disk is the same physical size as a standard floppy disk, only three times thicker.

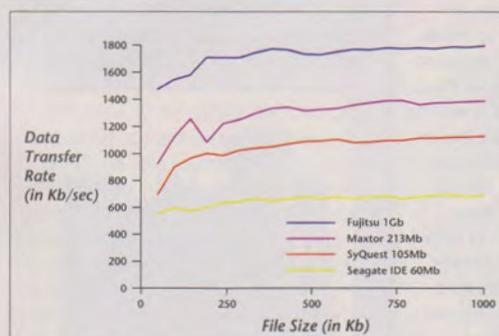


power the other for disk access. Located at the back are a pair of SCSI sockets, an ID selector and a power switch.

The smaller unit is based on the MiniS design with an opening for the cartridge. This unit is made of tough plastic and while being more portable, does not have enough space for a second mechanism, measuring just 21cm by 15cm by 6 cm. Both units are designed to stand upright and are shipped with one cartridge. Extra cartridges retail at £59.95.

VERDICT

The new SyQuest performed very well during testing and is likely to become the main back-up device for many people – and I would certainly recommend it as a first hard drive for those of you who want to take the plunge. It is certainly a welcome addition to the ST marketplace – long live technology!



This graph illustrates the performance of the drives reading files of increasing sizes. The SyQuest drive peaks at a transfer rate of about 1150Kb per second when reading data.

COMPARISON TEST

Drive	Transfer Rate (Kb/sec)	Access Time (ms)
Seagate 60Mb IDE	800	23
Maxtor 213Mb SCSI	1275	22
Fujitsu 1024Mb SCSI	1700	12
SyQuest 105Mb SCSI	1000	22

These tests were performed using ICD RateHD and provide some information about the performance of the SyQuest compared with standard fixed hard disks. It is interesting to note that the SyQuest is much faster than the Falcon IDE drive and does not lag too far behind the smaller SCSI unit.

PERFORMANCE

EASE OF USE	✓✓✓✓✓✓✓✓✓✓
DOCUMENTATION	N/A
EFFECTIVENESS	✓✓✓✓✓✓✓✓✓✓
VALUE FOR MONEY	✓✓✓✓✓✓✓✓✓✓

OVERALL

87%

KEY FACTS

Product: AlfaData OCR Scanner
Company: Golden Image
Contact: 081-365 1102
Price: £135 (£145 with full OCR)
SYSTEM
Minimum Memory: 2Mb
Resolution: High (recommended) or medium
Computer: ST/STe/TT with hard drive

Not long ago, you bought a hand scanner and you got a hand scanner. If you were lucky, there was a decent utility to drive the scanner but that was about all you could expect. These days, scanners are looking increasingly good value, not least for the utilities that are being bundled with them. The AlfaData OCR model from Golden Image is no exception.

WELL PRESENTED

In addition to the scanner itself, you get *Touch-Up*, a top quality mono image editing program, Migraph's *OCR Junior* for optical character recognition and *Merge-It!*, a special utility that enables you to scan images wider than the scanner head in two or more strips.

The package comes in a custom-designed box though I'm a bit dubious about the packaging's claim that the contents include a "256 greyscale" hand scanner. I'll put the record straight right now and explain that it includes no such thing. The scanner head is a standard 105mm



What a bundle - scanner, Touch-Up, Merge-It! and OCR Junior...

ALL IN ONE

Andrew Wright looks at a budget scanner bundle that handles both text and graphics to perfection...

type that scans in monochrome, dithering the image using 64 different patterns, and reduces it to an image made up entirely of black and white dots. This is then converted back to a true greyscale image using the supplied *Touch-Up* software.

The scanner head has the stop/start button on the left hand side along with the mode switch that offers three dither patterns from coarse to fine and

a text mode for OCR work or line art. On the top is a single LED scan indicator that flashes when you're moving the head too fast. On the right side is a brightness control wheel and a resolution switch offering either 100, 200, 300 or 400 dots per inch. The scanner is reasonably steady thanks to two small wheels at the back of the scanner on the underside.

There's an interface that fits into the ST's cartridge port and a mains adapter for power; all of the leads are of adequate length for most setups. A curiously shaped ruler called the "AlfaScale" is provided for guiding the scanner head and accurately scanning strips for subsequent joining in *Merge-It!*.

TOUCH-UP

If a list of all-time great ST software was compiled, I'm sure *Touch-Up* would be near the top. It was first released in 1988 and has gone from strength to strength over the years. Now up to version 1.84 it contains a comprehensive range of features for editing and processing mono pics. It doesn't handle greyscale images at all, although it will convert colour and greyscale images to



A composite image showing dithering at fine, medium and coarse settings.

monochrome using various dithering techniques.

The copy supplied is the latest version with specially included support for the AlfaData scanner. It can scan images directly into the program's image window and supports all the scanner's settings directly, apart from the dither pattern. Images can be loaded in .IMG, Degas, Macpaint, .NEO, .PCX, .TIF and .TNY formats and saved in .IMG, Degas, Macpaint, .GIF, .PCX, .TIF and .IFF monochrome formats. Special techniques are used to turn the dither patterns back to continuous tone greyscale images, either in .IFF format (16 shades) or TIFF (256

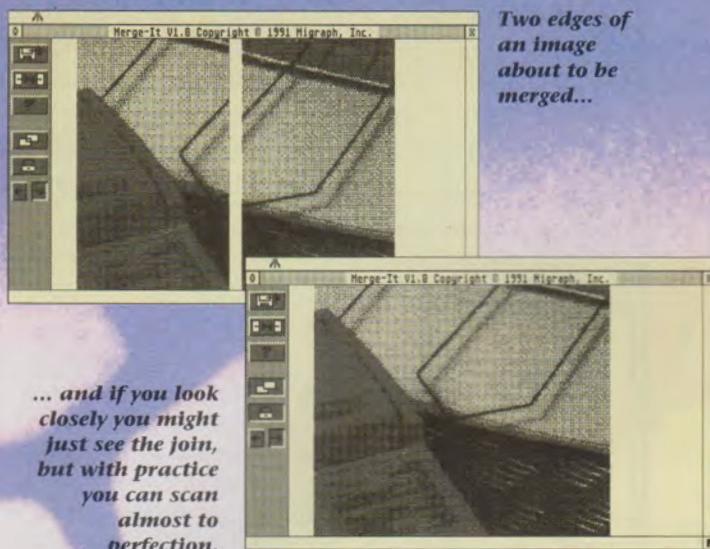


This image was scanned at 300 dpi and converted into a 256 greyscale TIFF file.

JARGON JUGGERNAUT

Optical Character Recognition, or OCR, is the technique of teaching a computer to read and understand text. Any computer can scan a page of text but it is still stored as a dot by dot image, rather than meaningful words and sentences. An OCR program will break the image down into lines, words and characters. It will then analyse each character using pre-defined rules and convert the ones it recognises into the ASCII equivalent.

The result is a text file that you can load into a word processor or store in a database. OCR is particularly useful for information storage and retrieval as a computer can search through text for words or phrases far quicker than the human eye.



Two edges of
an image
about to be
merged...

... and if you look closely you might just see the join, but with practice you can scan almost to perfection.

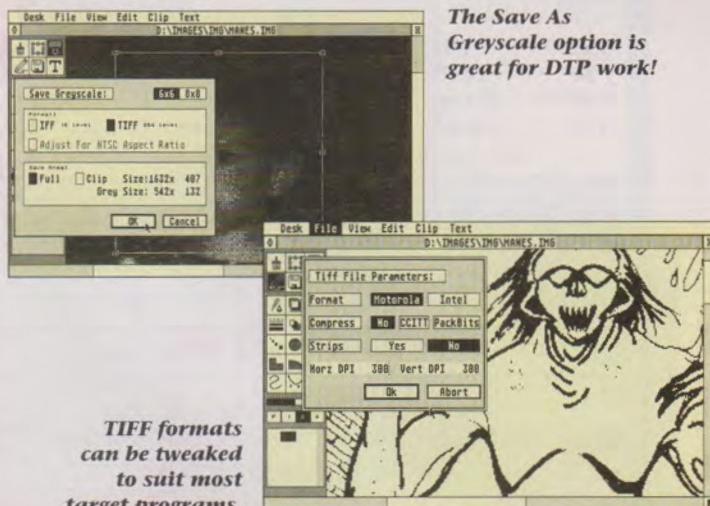
shades), with a choice of either 6x6 or 8x8 grid interpretations. The results are, quite naturally, smaller and lose some definition but at least they can be resized more easily and processed using greyscale image editing software. The 16 shades of grey is useful for importing into paint packages.

Touch-Up is far more than a scanner driver, however. It is a complete monochrome art program in its own right, with several handy features for creating artwork from scratch such as editable *bézier* curves, various line and brush widths, GEM fills and even automatic shadows. As the image size is unlimited due to the virtual paging, it is an ideal tool for desktop publishers. Its only weakness is a lack of tools for retouching, though it will clean up stray pixels. Text can be added to images which can then be printed out via standard GDOS printer drivers.

The program runs on any Atari with 1Mb or more of memory, though for large images a hard drive or more RAM will be necessary.

MERGE-IT

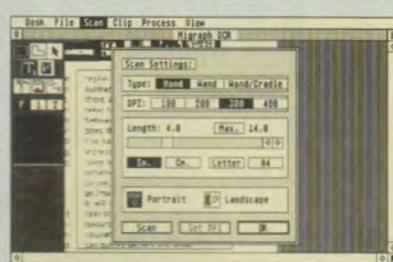
A very useful utility is included on one of the *Touch-Up* disks. *Merge-It* comes with a precise 16-page printed manual and is designed to let you



*TIFF formats
can be tweaked
to suit most
target programs.*

OCR JUNIOR

Also included in the AlfaData package is Migraph's optical character recognition program, OCR, which is available in two versions. *OCR Junior*, which is normally supplied, is identical to the full package in every respect bar one – it won't load images. The only way to use it is by scanning directly into the program, using the AlfaData scanner. Ordered at the same time, the full version of the OCR package will cost an extra £10 (£35 for later upgrades) and this lets you load existing images in .TIF or .IMG formats, including those created with *Merge-It*.

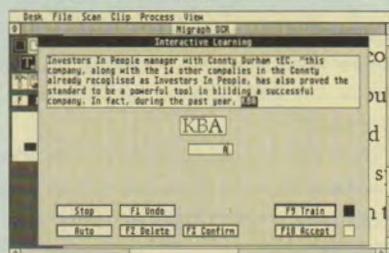


*Documents are scanned directly into *OCR Junior*.*

Whichever option you choose, Migraph's OCR is an excellent program that does the job very well and with surprising speed. It is supplied on three disks and includes a splendid 58-page manual that tells you everything you need to know and more. The core of the program is the *Omnifont* engine that uses mathematical definitions to identify each character instead of storing bitmaps for comparison. This makes it much faster and a lot more accurate.

Migraph OCR is pre-trained to recognise 20 typefaces including Bookman, Courier, Elite, Helvetica/Swiss, Letter Gothic, Pica, Prestige and Times. It can also be trained to recognise new ones. It is able to recognise both US and European character sets and is supplied with several foreign language dictionaries in addition to English (Dutch, French and German) to help in the reading process.

Migraph OCR runs on any Atari (including the Falcon) with 2Mb of RAM or more plus a hard disk. If you do try and scan a file that won't fit into RAM, the program will use the hard drive as extended memory although this obviously slows the process down. The program won't even contemplate running on a 1Mb machine, though, so be warned...



New typefaces need a lot of work but once trained, OCR is a fast way of getting text into a computer.

reasonable sized image. *Merge-It* will run on any ST and is fully Falcon-compatible, but it doesn't use hard drive caching so a computer with 1Mb or more is recommended.

VERDICT

This is a great little bundle that offers everything that ninety per cent of Atari owners will ever need, though you'll need to be in the top ten per cent as far as hardware is concerned!

You'll be able to scan tolerably well with a 1Mb machine but without at least 2Mb, the OCR disks will just be expensive beermats. I'd suggest a mono monitor too. *Touch-Up* looks much better in high resolution although all the supplied software will run quite happily in medium.

SUMMARY

GOOD POINTS:

- Superb documentation
- Support for large images
- Stable, top notch software
- Good output quality

BAD POINTS:

- Greyscales by conversion only

FINAL WORD:

"A neat bundle that offers an all-in scanning solution at an excellent price."

PERFORMANCE

EASE OF USE



DOCUMENTATION



EFFECTIVENESS



VALUE FOR MONEY



OVERALL

85%

IN PUBLIC

There's no place like home...



Love them or hate them, flashy public domain demos are just as much a part of the ST's history as *Calamus* or *Calligrapher*. When the demo scene was in full swing in the late eighties, there was a constant battle to push the ST to ever greater heights - busting (or spreading graphics into) the borders, squeezing dozens of animated sprites onto the screen and persuading the machine that it could indeed scroll smoothly if it really tried hard. In fact, many of the feats these enthusiastic home users achieved in just one or two years were considered impossible by commercial programmers at the time. *Enchanted Lands* was written by The Care Bears in response to a claim that their "hardware" scrolling technique could not be implemented in a commercial game!

The trouble is, those days have all but disappeared. Home computers, in general, are in decline and being rapidly replaced by consoles for entertainment and so-called "real" computers for business. That "in between" grey area that provided programmers with some games hardware and the means to program it in one neat package is being eaten away from both directions. The ST and Falcon still have a lot of life left in them yet, of course, but what is happening beyond that?

Think about the things that the home computers like the ST still have to offer: a standard architecture, programming documentation aplenty and languages specifically designed with games in mind. Yes, even *STOS*, for all its sins, can be thanked for introducing many people to the joys of games programming. Of course, many would argue that the same thing applies to the all-conquering PC, as long as you make sure your game is compatible with all major sound cards, doesn't conflict with any device drivers, that the machine in question has enough XMS memory and... well, I rest my case!

Don't get me wrong. I am as excited about Jaguar (hey, let's drop the "the") as the next man, but it seems a shame that the only programmers who are going to be able to explore its potential are those with enough money to invest in a development kit. The "back bedroom" talent that made the ST scene such an exciting place to be has been lost to consoles, and most kids' interest in their machine goes no further than high scores for *Mortal Kombat*. The ST and Amiga demo scene produced some of the finest games programmers in the world - I wonder where the next generation are going to come from?

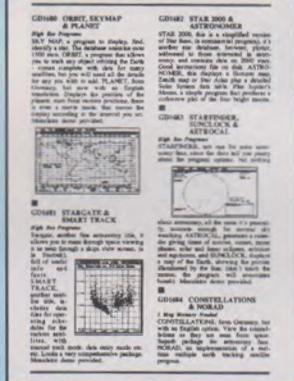
There are rumours of a Jaguar computer being produced if the console is successful and perhaps it's just the springboard Atari need to reinvent the home computer - I genuinely hope they succeed...

Nial Grimes is a nostalgic old, er, person who has owned more "classic" computers than we would care to mention. They say that everybody has one good game in them and he hopes to produce his before the home computer disappears...

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Vic Lennard
previews a rather
interesting music
program for
the Falcon...

TRAK COM

Compo released *MusiCom*, its budget "you too can be a musician" package, the moment the Falcon appeared. Offering very cheap direct-to-disk recording, *MusiCom* was the perfect way for non-musicians to see what the Falcon's DSP was capable of. Our recent preview of *MusiCom 2* showed the program's development towards a professional two-track recording, editing and play-list creator, but that leaves a huge gap between this and the likes of *Cubase Audio*. Time to look at *TrakCom*...

WHAT IS IT?

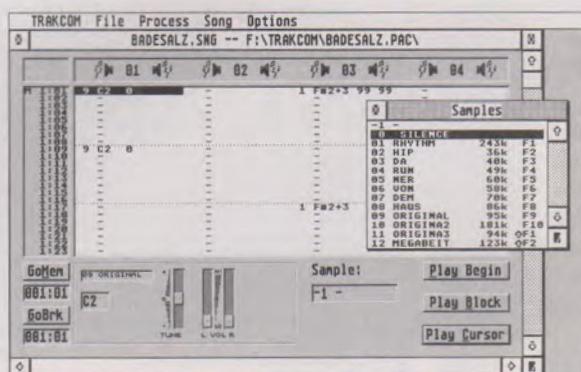
TrakCom is a mono sample sequencing program that offers between six and ten tracks of digital audio, depending on the play-back rate. Six tracks or less will give you CD-quality or better; ten tracks brings the rate down to a still respectable 25kHz.

What's the point of playing back sounds without being able to record them? Both *WinRec* and *FalconD2D* can handle that side of things, so perhaps Compo saw little point in re-inventing the wheel! While *TrakCom* allows you to carry out basic editing in its *Sample Editor*, the main thrust of the program is the way in which anyone can put together a jingle or dance track in no time flat.

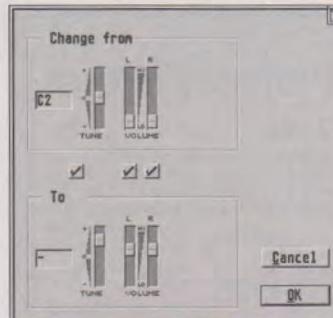
Hear me - the Sample editor lets you set the start and end points in either normal...

... or outlined view. You can also zoom in and out, loop and reverse the sample.

THE RIGHT TRACK



Place me - simply place samples from the dedicated list into the main Editor to create your pattern.



Change me - the tuning and left/right levels of a block can be altered from within the Block Operation dialogue box...

starts. *TrakCom* works in terms of patterns; the number of steps, or "lines" as they're called, per pattern and in total are set in the *Song Parameters* window, as are the number of tracks. There's also a measurement called "shift" that sub-divides a pattern, so with the default of 32 lines per pattern and eight lines per shift, musicians can work with 32nds and 4/4 time. The rest of us get 32 vertical lines in each pattern and a dotted line on-screen after every eighth! Tempo is measured in lines per second, an odd measure for a musician but still eminently usable.

Inserting a sample into a pattern is very simple: choose the line, select a sample via its keyboard shortcut and press the <Q> key. Pressing any other key also inserts the sample but at a different play-back rate, so altering the pitch. Hitting <Return> at any time plays the creation from the start; a further press of the key stops

play-back. You can also mute individual tracks. Let's say that you've created a good basic rhythm for a song and want to use it in the next part. <Control><Insert> adds a new pattern to the bottom of the list after which you can grab your track by using a typical click-drag technique, copy it and then insert it at a new line.

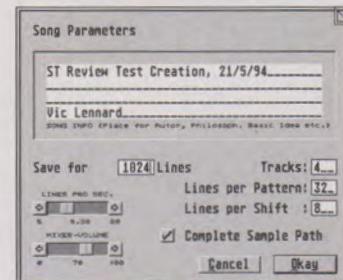
TrakCom's block commands (cut, copy and insert) are in keeping with the GEM Clipboard - I wonder whether Compo will allow *MusiCom* samples to be imported in such a way?

Changes to pitch and volume can be carried out on a block via the *Block Operation* menu. Here, loudness and tuning is changed through the course of the block, allowing you to carry out quite sophisticated fades in and out. Alternatively, you can fine tune a sample or set its volume from the *Editor* - the current settings are shown to the right of the sample number.

NEARLY THERE

Apart from a few bugs, *TrakCom* is almost finished and should be available in the early summer with a price tag of less than £80.

Within fifteen minutes of starting up, you can be creating music in a friendly, easy-to-use environment. While *TrakCom* may not be a reason to purchase a Falcon, it looks like being an essential buy for all of you who already own one and want to experiment with samples. As a stand-alone sample sequencer, this is going to take some beating...



See me - set out the structure of your creation from the Song Parameters box. Note the total lack of musical terms!

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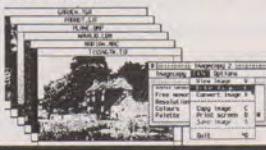
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EASY PEASY

G lance casually back over the history of the ST and you'll find one of the widest selections of art packages available for any machine. It doesn't matter whether you want to paint in thousands of colours or design sprites for games – there's something to suit, so why the need for yet another pixel pusher? Well, EZ-Art Pro uses a card that hasn't been played too often before – ease of use. It's what Floppyshop call a "back to basics" approach (*a bit of a Major claim?... Ed*) and what the package lacks in technical wizardry it claims to make up for in honest usability. Let's see how things are shaping up...

FACE FACTS

Users of EZ-Art Pro's shareware predecessor will be slightly surprised at just how much the program has changed. The old "white" interface has been buried and in its place sits a carefully sculpted replacement, complete with 3-D dialogue boxes and constant on-line help. It's a huge improvement once you have recovered from the shock and must rank alongside the likes of *Crack Art*.

Some of the nicer points of the shareware version do linger however. The size of the painting area is not limited to the vertical screen size and multiple pictures can be held in memory very easily. Even if you do try to load a picture that is too wide, EZ-Art Pro will carefully scale it for you, preserving the aspect ratio as it does so.

Of course, the only reason larger pictures can be loaded at all is through some pretty nifty import options. Amiga IFF, HAM and the usual selection of ST formats are all supported, and GEMView's 16-colour

Sick of art packages that offer more glitz than go? David Nilson checks out EZ-Art Pro, a slick alternative from Floppyshop...



Drop-dead looks and a pleasantly bulging specification sheet are all part and parcel of EZ-Art Pro.

IFFs seem to load perfectly. The dithering method is fully adjustable as well and it's possible to come up with some pretty impressive results if you try hard. The nicest thing about the whole package is its speed – finger tapping is kept to a minimum no matter what the operation and, even more impressively, the whole shebang fits comfortably into a 520 ST. In this sense, it really is a package for the everyday ST owner.

IMAGE IS EVERYTHING

Scratch a little deeper than the interface and you will find an equally classy collection of drawing tools. In addition to the standard range of lines, points and rays there are curves, filled polygons and even an option to use graduated fills within shapes – very clever, but you do have to be a bit careful given that there

are only 16 colours to play with! And of course, let's not forget the fill editor which allows colour or mono patterns to be designed and saved with ease.

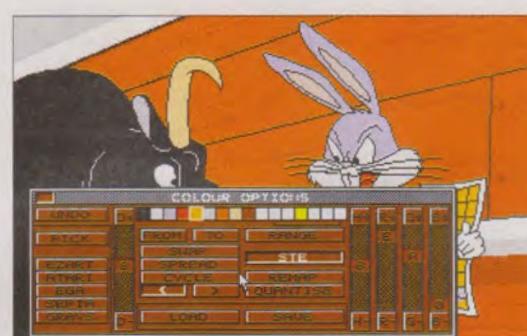
Block handling is another area where EZ-Art Pro makes a mark. Portions of an image can be grabbed in square or irregularly-shaped chunks and some of the effects that

can be applied border on image processing. There are options to pixelate, dither, shatter, outline or soften a block and, naturally, Degas-style skewing and distortion put in an appearance. Once again, low resolution limitations stick their oar in, but the colour dialogue box does try its best to work around the stingy range of shades on offer. It's possible to create a spread of colours, and the default ST palette is available with a single click. The "hue" button for instantly lightening or darkening a colour is a feature that many other packages would do well to pick up.

SO FAR, SO GOOD...

EZ-Art Pro is shaping into a sort of modern-day version of *NeoChrome*. It won't make you hot under the collar in the same way as *Spectrum 512* or perhaps *Deluxe Paint*, but manages to cram all of the essentials plus a few extras into a very compact and usable package.

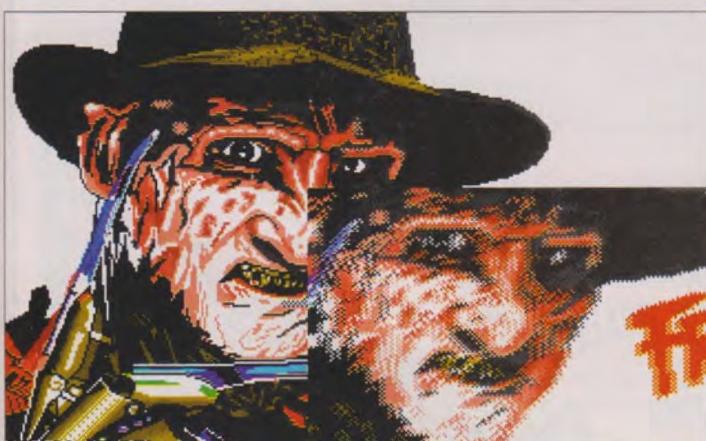
EZ-Art Pro is in the very late stages of development and should be available by June 1st. It is fully Falcon-compatible (although not enhanced) and will cost £29.95. Check out next month's issue for a full review...



Colour spreads are easy to produce and each shade can be lightened or darkened through a single slider.



When working with larger pictures, EZ-Art Pro can provide a reduced, overall page view.



EZ-Art Pro manages to offer a good range of image processing effects despite the limited number of colours.

WRIGHT ISSUES

Let's talk shop...



Hands up any of you who think some of my somewhat outspoken views have been a wind up? Wrong – the answer's none of them. I might not always believe one hundred percent in some of the stuff I trot out month after month but I do sympathise with the opinions put forward.

I'm a member of several small user groups and make regular visits to the odd computer club here and there – the ones that don't consist of wall-to-wall Amigas displaying the infamous XCopy screen, I hasten to add. As a result, I hear a lot of gossip, which I assume reflects the opinions of most of the Atari community. With a bit of thought and some cross-checking, these views make ideal topics for columnists like me. Not only do they reflect real-life views but they highlight the things we should be talking about.

That's the nub of the matter, of course. We should be talking and by and large we're not! These days we're being bombarded on all sides by doom and gloom merchants, particularly the disgruntled users who've decamped to the PC. The best way forward for all of us is to join forces and bring things out in the open.

There's a healthy on-line community of Atari enthusiasts out there just dying to exchange views and information with new users. With the price of fast modems and paid on-line services dropping all the time, and the growth of massive world-wide networks like the Internet (see page 85), it has never been more cost-effective to get into the world of comms.

Not only can you get support, help and advice but you can try out oodles of PD and shareware without too much effort – a 14,400 baud modem will download the equivalent of a floppy disk of software in about seven and a half minutes. If you do it at the weekend, it'll cost you only a local call. What's more it takes only one modem to put a whole club or group of enthusiasts in touch with the rest of the world. This is one idea that has been sadly neglected – split four or more ways, a modem costs next to nothing.

I'll tell you what, I'll put my money where my mouth is. I've got two modems here sitting doing nothing. They're 2400 baud and a little on the slow side but they're fine for logging onto BBSs. I'm quite happy to loan them out to anyone who wants to try them. We've covered plenty of BBSs in Comms Coaching so here's your chance to try some of them first-hand. All I ask is that you send them back after a week, along with a brief letter of your experience, and pay for the return postage. Write to me at ST Review and I'll send them out on a first come, first served basis...

Andrew Wright is a freelance writer and has been a contributor to ST Review since its inception. Described by his wife as a gossip, his quarterly telephone bills are reputed to be in four figures – and that has nothing to do with using a modem!

Experience profound relaxation and improved creativity – from just £229!

Create virtually any mental state you require, using the new MindLab – a state-of-the-art light-and-sound generator. Years of research have shown that the human brain will tune into the frequency of flashing lights and tones – which is why flickering flames are relaxing, and why rhythmic drumming fires your imagination. From the MindLab's 25 carefully crafted programs you can choose the results you want – and get them fast:

- Relax effortlessly – and feel refreshed after a 20 minute session
- Feel energised with heightened awareness
- Stimulate your creativity – and experience vivid mental images
- Accelerate your learning – ideal for listening to study tapes
- Sleep deeply – a safe and drug-free solution



"The MindLab is an electronic relaxation device that alters your brainwaves through the use of rhythmic light and sound" – Playboy

It's so easy to use: simply slip on the goggles, put on the headphones and press a couple of buttons to select the program you require. You'll achieve rapid results with just 15 to 25 minutes of use a day – and the experience is fun!

IT'S EXPANDABLE What's more, the MindLab is infinitely expandable: its unique extra PolySync circuitry allows you to transfer up to 25 new sessions from tape within 15 seconds. With your unit you will receive a special tape containing 42 further sessions – in addition to the 25 that are built-in – created by experts in the field of mental fitness. (More new programs are available now!)

HERE'S WHAT YOU GET:

- Sturdy and stylish custom-moulded MindLab unit – use it anywhere
- Soft-touch buttons for selecting from four tones, adjusting the pitch, adding 'binaural beats' and more
- Reflective goggles with red LEDs, and lightweight stereo headphones



• NB: These units are not suitable for those who have had epileptic seizures.

ORDER YOURS NOW!

Ring Chris or Geraldine on 0625 858885 to place your order or ask any further questions – or fax them on 0625 850551. Office hours: 8.30am to 7pm and beyond.

Alternatively, fill out the coupon below, and send it to: **MindLab Offer, LifeTools, Dept STR7, FREEPOST SK1852, Poynton, Stockport SK12 1FZ** (no stamp needed). We endeavour to despatch your order on the day we receive it by 48-hour courier, but allow 28 days for delivery just in case.

FREE catalogue!

Send for a **FREE** catalogue of all our products including biofeedback units, air ionisers, accelerated learning courses, deep relaxation tapes, groundbreaking books and more.

All prices include VAT. Trade enquiries welcome.

LifeTOOLS
New technology for
a more fulfilling life

Please send me the items marked below. I understand that if I am not completely satisfied I can return my purchase within 15 days for a full refund.

Please send me:

Qty Items Price Total

— MindLab £299 £_____

— NeuroSynchronizer £229 £_____

— 36-page guide to light-and-sound FREE

Packing and Parcel Force delivery £3.50

Total: £_____

Please send me the **full** LifeTools catalogue.

I enclose a cheque for £_____

Please debit my Access/Visa number:

Expiry date: _____

Signature _____

Name _____

Address _____

Postcode _____

COLOUR KITS for MONO PRINTERS

Ever wished you'd bought a colour printer instead of a mono one? Wouldn't it be nice to print out pictures in colour? Now you can with Atari "FlexiKolor Kit". Each Atari FlexiKolor kit comes complete with everything you need to print in colour, including superb software. The colour kit is simple to use, the ribbons fit exactly the same way as your black ribbons so it will not affect your guarantee. Also on all models listed below

paper alignment is automatic, you do not have to manually align. PRINTS AS GOOD AS COLOUR PRINTER. If your printer is not listed below please phone. Atari FlexiKolor kits for Star LC10, LC20, all Star 24 Pin, Panasonic 1080/81/1123/1124, Epson FX80, LQ100, LQ400, LQ800 etc. Citizen 120D+, NEC P6, P6+, Seikosha 1900+. Please note colour kits come complete with coloured ribbons. COMPLETE KIT £39.95

FLEXIDUMP PLUS 2

THE COLOUR SOFTWARE FOR YOUR COLOUR PRINTER

- ★ Total colour control
- ★ Balance control for picture enhancement
- ★ Select area to be printed
- ★ Select size to be printed
- ★ Page control
- ★ Colour sieve
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- ★ Automatic poster mode for larger than A4
- ★ Gamma correction (fully adjustable and saveable)
- ★ Spooler for colour letterheads etc
- ★ Multiple copy control
- ★ Colour correction
- ★ Colour/mono catalogue function
- ★ Imports a large range of file types including (IMG) larger than screen size, tiny, Spectrum 512, IFF, Degas, Neo, IFF (Amiga), HAM (Amiga) yes you can even print Amiga pics.
- ★ Colour separation (Print colour on your Bubble Jet)
- ★ Dot pattern control
- ★ Pattern rotate
- ★ Ideal for T-shirt printing
- ★ Now with 'smooth' control, get rid of those jagged edges.
- ★ Large range of dithering (dot pattern) modes.
- ★ Run in any resolution, view, manipulate and print in any other resolution
- ★ Colour catalogue function will print a miniature of each picture configurable between 1 to 8 across
- ★ Will drive 9 or 24 pin Star, Citizen Swift, Panasonic, NEC, Epson, Canon, HP Deskjet 500C, 550C etc.

STOP PRESS
NOW AVAILABLE
FLEXIDUMP PLUS 3

STILL ONLY £39.95 inc

UPGRADE FLEXIDUMP TO FLEXIDUMP PLUS 3,
ONLY £14.95 inc. RETURN MASTER DISK

T-SHIRT PRINTING RIBBONS

PRINT ON NORMAL PAPER IRON ON T-SHIRT

4 Colour Citizen Swift.....	£29.95
4 Colour Citizen Swift (Reload).....	£14.95
4 Colour Star LC10.....	£14.95
4 Colour Star LC200 9 Pin.....	£19.95
4 Colour Star LC200 9 Pin (Reload).....	£12.95
4 Colour Star LC200 24 Pin.....	£29.95
4 Colour Star 24 Pin (Reload).....	£14.95
4 Colour Seikosha SL95.....	£29.95
4 Colour Seikosha SL95 (Reload).....	£14.95
1 Colour Citizen 120D/Swift	£11.95
1 Colour Star LC10.....	£11.95
1 Colour Star LC200 9 Pin.....	£11.95
1 Colour all Star 24 Pin.....	£11.95
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Heat transfer Pens 5 large red/orange/yellow/green/ blue, Large pens have a marker size nib	£14.95 a set
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"TRANSFERLAQ" for putting prints onto ceramic, glass, aluminium etc. (for use with T-Shirt ribbons and inks).£14.95	

This is only a small part of our range.

Please phone for other printer types

How to order: Enclose cheques/PO made payable to:

CARE ELECTRONICS or use Access/Visa

ALL PRICES INCLUDE VAT AND CARRIAGE

Order Line 0923 894064

CARE ELECTRONICS

Dept STR, 15 Holland Gardens, Garston,
Watford, Herts, WD2 6JN.



Tel: 0923 894064 Fax: 0923 672102



PRINTER RIBBONS

Don't throw away your plastic printer cases when the ribbon wears out. Just take the top off, take out the old ribbon and reload it with a new one. It's simple. Full instructions supplied. Black reloads from as little as 99p each.

COLOUR PRINTER RIBBONS

Reloads for:-

Star LC200 9 Pin 4 Colour (Normal Ink)	
1 Reload - £5.99	5 Reloads - £23.95
Star 24 Pin 4 Colour (Normal Ink)	
1 Reload - £6.99	5 Reloads - £29.95
Citizen Swift 4 Colour (Normal Ink)	
1 Reload - £6.99	5 Reloads - £29.95
Panasonic KXP2180/2123 4 Colour (Normal Ink)	
1 Reload - £6.99	5 Reloads - £29.95
Seikosha SL95 4 Colour (Normal Ink)	
1 Reload - £6.99	5 Reloads - £29.95

Ink ribbons also available in Gold, Silver, Magenta, Orange, Purple, Brown, Green, Blue, Red for a wide range of printers.

Special re-ink for Panasonic printers, Star LC200 9-pin, Epson LQ100 black bottle will re-ink 100+ ribbons ...£9.95

No MESS INK REFILLS FOR HP DESKJET

PAINTJET AND CANON BUBBLEJETS

"CARE THREE PACK" will refill HP5108A Cartridge 3 times. The Canon BC/01/SJ48 Cartridge 3 times. Three Pack available in Yellow, Magenta, Cyan, Red, Blue, Green, Brown, Purple, Black £14.98 each.

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Canon BC/01 Cartridge 6 times.

6 PURE BLACK REFILLS ONLY £24.95

Please state type when ordering

Print Head Recovery Fluid for unblocking inkjet/bubblejet cartridges, 18ml bottle £5.95

Ever wondered exactly which programs would make your ST a joy to work with? Ofir Gal starts a new series aimed at providing the answers...

ESSENTIAL EXTRAS

BOOT MANAGERS

SUPERBOOT V8.1

Probably the most popular boot manager is *SuperBoot*. Now at v8.1, it's pretty high on features although completely keyboard driven with stored sets being recalled via the function keys. Any set can be modified at boot time, but full configuration requires the *SuperBoot Construction Set* program. This allows you to select the boot drive, set paths and define files not directly supported by *SuperBoot*, such as CPXs and *ASSIGN.SYS* files. These are referred to as being "Other Files" and the handling of them is hardly what can be termed as easy.

The display is user-configurable to a degree, but generally shows all AUTO folder programs to the left of the screen and desk accessories in the centre. The right side is reserved for the Other Files.

Other useful features are the assigning of *DESKTOP.INF* files with different resolutions so allowing you to choose the files for different screens, and the playing and displaying of sounds and pictures. There's even a password facility.

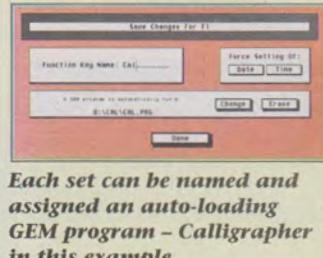
SuperBoot is certainly a powerful tool but is a little difficult to use because of its DOS-like interface. Even so, its power alone has made it a popular item among many ST owners. At a shareware fee of \$15 (about £10) it is also extremely good value for money.



SuperBoot's configuration program is used for creating sets and handling assorted files.



This screen is displayed whenever you boot the system, enabling you to choose a set and even edit it.



Each set can be named and assigned an auto-loading GEM program - *Calligrapher* in this example.

Most of you will be all too familiar with the following scenario. You have just installed a really useful desk accessory or AUTO folder program, only to find that it causes serious problems when using one of your favourite programs. If you use *Calligrapher*, which was featured on our March cover disk, you may have realised that it's incompatible with *GDOS*. So what do you have to do? Go to the AUTO folder, disable *GDOS* and reboot. Then when you finish with *Calligrapher*, you have to do the opposite. However, a decent boot manager can solve this kind of problem...

HOW DOES IT WORK?

On power-up, TOS loads several files from your boot disk, normally the internal drive on a floppy system, or partition C of a hard drive. All files with the extension .PRG are loaded from the AUTO folder followed by all files with the extension .ACC from the root directory - that is, accessories outside of any folders. A

boot manager works by changing the file name extension of unwanted programs and desk accessories. The convention is to rename AUTO folder programs to .PRX and accessories to .ACX. So *GDOS.PRG* becomes *GDOS.PRX* when disabled. A boot manager is normally the first program to load during the boot sequence, giving it a chance to rename any programs that you don't want loaded into the system.

You can manually rename files, just as the boot manager does, but this is a tedious affair and prone to error. A boot manager automates the whole process but lets you define several set-ups, or sets as they are sometimes referred to. You can have a *Calligrapher* set without *GDOS*, a *Timeworks* set-up with *GDOS* or even a clean boot without any programs or accessories. Most boot managers can also load a GEM program like *1st Word Plus* or *Calamus* automatically at the end of the boot sequence, using a built-in feature of *TOS* since v1.04 or an extra program with earlier versions.

**XBOOT IS AVAILABLE FROM HISoft
(0525 718181) FOR £34.95
PLUS £2 P&P; ALL OTHER PROGRAMS
CAN BE OBTAINED FROM PD
LIBRARIES AND BULLETIN BOARDS.**

UNDER THE SPOTLIGHT...

Need to know more? Here's the lowdown on the three main programs...



Program	Sort AUTO Folder?	No. Sets	File Utilities?	ASSIGN.SYS?	CPXs?	Batch?	Sounds?	Pics?	Set Date/Ti
SuperBoot	Y	30	N	Y	Y	N	Y	Y	Y
XBoot	Y	20	Y	Y	Y	Y	N	N	Y
Start It	Y	50	Y	Y	Y	N	Y	Y	Y

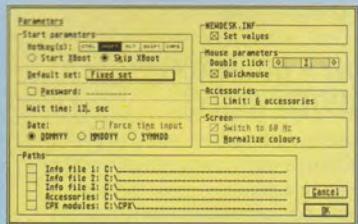


XBoot V3.10

Originating from Germany, XBoot is the only commercial package available whose real strength is in its GEM-like user interface complete with pop-up menus, radio buttons and scrolling file lists. Unlike SuperBoot, XBoot is fully configurable at boot time making it much simpler to use. For instance, sets are selected via function keys or by double-clicking with the mouse. Equally, items may be selected and disabled with the mouse or via keyboard shortcuts.

XBoot boasts a dedicated CPX menu in addition to AUTO programs and accessories. It also sports a file manipulation dialogue box where files can be copied, renamed or deleted – similar to a shareware file selector if you like. A separate dialogue box allows the use of batch commands at boot time; tasks such as copying a bunch of files to a RAMdisk can be fully automated. Uniquely, XBoot can resort files in the AUTO folder, a time saver when AUTO programs clash.

While lacking any sound or image file support, it does offer an easy to use yet powerful boot management system. The package also includes a printed manual and while £34.95 may not be cheap, XBoot delivers where it counts.



Everything is fully configurable at boot time...

XBoot uses a familiar GEM interface which makes it easier on the eye and a doddle to work with.

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A cheap switch box and cables allow you to use two printers without tears...



The print head from a Star LC10, one of the most popular of 9-pin printers.

FIT TO PRINT

*With spray-can at the ready,
Paul Rossiter shows you how
to keep your printer in tip-top
condition...*



PART ONE: DOT MATRIX PRINTERS

According to our recent readers' survey, it appears that over ninety percent of you own a printer, the vast majority being of the dot matrix and inkjet varieties. This series of short articles is intended to help you get the most out of your printers in terms of quality and economy, starting with dot-matrix printers, or DMP for short.

While DMPs are dropping from fashion nowadays in favour of inkjets and lasers, they still have an important place in the ST world. For label production, especially the odd one or two, a cheap DMP is unbeatable and the only choice for printing on multi-part forms. As for producing cheap, high-speed text, page after page...

For graphics work the quality can be disappointing, especially on the older 9-pin models and the advent of cheap inkjets has convinced many owners to upgrade. But as the second-hand market for old printers is so poor, it's worth hanging onto

the old DMP just for labels and draft printing. Just add a switch box and the choice is yours.

HOW A DOT-MATRIX PRINTER WORKS

Understanding the working of a machine always helps when maintenance is needed. A box of paper is loaded into a DMP by carefully aligning the holes along the edges of the paper with the tractor units. Motors drive the platen (the rubber-coated roller that the paper goes around) and can control the feed of the paper, accurate to hundredths of an inch.

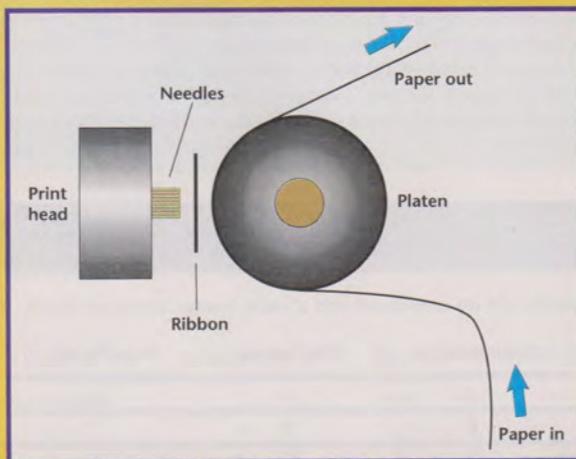
The ST sends information to the printer telling it which characters to print onto the paper, the printer accepts this data and converts it into signals that drive the print head. This has a row of very fine needles or pins that fire forwards, press into the ribbon and so leave a small round

dot on the paper. The print head moves across the platen producing a band of text or graphics on the paper which is then fed up a little at a time and the procedure repeated. To improve on the quality, most printer drivers can tell the printer to only advance a half-dot spacing which effectively doubles the resolution of the printer – but slows it down tremendously.

While 9-pin printers are so named because they have a row of nine



Printing too light? Then move the print head closer to the paper by pushing the lever.



As paper feeds over the platen, the print head needles impact on the ribbon resulting in tiny dots of ink being transferred to the paper.

HOW THE ST DRIVES PRINTERS

The ST was designed with industry-standard connectors for its printer port: a 25-way female "D" connector. Simply use a standard IBM PC printer cable to connect the two, going from the printer port on the ST to the Centronics connector on the back of the printer. If you need to connect two printers, the best method is to use a 25-way D connector switch box which accepts the two printer cables and needs one extra cable, a 25-way male-to-male lead.

Some printers, especially older ones, only have a serial connector. This can be a real headache to connect up as all the settings have to be just right – time to grab the manual and check the baud rate, start and stop bits, and to set the handshaking properly!

If there is a choice, always use the parallel port as the data transfer is much faster as well as being more convenient. Most software will automatically send data to the normal parallel port; redirection to the serial port needs some tweaking of the software to set up that port as the default.



Label stuck on the platen? Grab the magic spraycan and...



... voilà – the label just lifts off!

needles in the print head, they can give up to 240 by 216 dots per inch at their highest resolution. As always there is a trade off between speed and quality, the lower resolutions of 60 by 72 and 120 by 144 dots per inch being faster but not as sharp.

Their more modern, 24-pin cousins do not have a row of 24 needles as you might expect, but two staggered rows each with 12 needles.



A selection of typical solvents and lubricants.

This extra set results in a much-improved 360 by 360 dots per inch, although various faster modes are usually available and produce lower resolution images of 90 by 90 or 180 by 180 dots per inch.

TAKING CARE

Fortunately, dot matrix printers are very easy to look after. The print head lasts for millions of characters and the only consumable part that needs replacing is the ribbon. If you do a lot of printing, it's a good idea to vacuum out the paper dust that comes off the paper every few

- Ensure that all of your software packages are using the best "printer driver", the small section of code that sits between your program and the printer. Look for your printer's name in the menu to give best results and if your own printer is not listed, then an Epson-compatible driver will usually work but may not offer the best results. If this is the case, use an Epson FX driver for a 9-pin printer and an Epson LQ driver for a 24-pin machine.
- If you want to print screen dumps, then the control panel can only be used with the old Atari SMM804 printer or an Epson 9-pin compatible. If you want to use other printers, check out *Imagecopy 2* from the ST Club (0602 455250) as this will let you dump screens to files or virtually any printer at its optimum resolution.
- Some labels, especially cheaper ones, can come off and wrap around your printer's delicate mechanism causing all sorts of damage. If this happens, remove the label as soon as possible using a pair of tweezers. The glue on the back of the labels can be difficult to remove but cans of special label remover are readily obtainable. Soak the label, leave for five minutes and lift off with the tweezers – magic!
- Most printers can print over the edge of the paper and leave an inky mess on the platen. Remove this quickly, preferably before it dries, using Isopropyl Alcohol (IPA). A good source of this is capstan cleaner for cassette decks. Use a cotton bud and a clean cloth to wipe off the mess.
- If the printer seems to be sticking and not aligning properly, try a small amount of WD40 on the main shaft that the head runs along.
- Many of you are probably unaware of the little lever that controls the distance of the print head from the paper. Moving the head towards the paper gives a blacker image but too far forward can lead to the ribbon snagging with nasty stains on the paper as the result. If the print head is too far back, the image appears rather washed out. If you change the type of paper, it's a good idea to experiment until you find the best position.
- If you are using tractor-fed paper, try to buy "micro-perf" paper. When the tractor holes are torn off, the edge is smooth and almost indistinguishable from cut sheet paper. It's thicker and smoother too.
- There are ribbons and there are ribbons... Good quality ribbons may cost a bit more but they are usually much longer, made of better quality fabric and hold a lot more ink.
- When using a word processor, see if it can access the printer's built-in fonts. These are much faster to use and give optimum print quality as they have been individually hand-crafted for that particular printer. *Protext* is an excellent program for driving printers at their best with straight text.

HINTS 'N' TIPS



months; if left to build up, it can cover up sensors and cause problems like "paper out" signals when there is plenty of paper in the printer.

Clean the outside of the printer regularly with a little soapy water (switch off the machine first!) and leave it to dry before reuse. Clean the platen if necessary with IPA solvent. The gears in modern printers are self-lubricating so don't oil them!

The most common faults in printers are the power supply or the print head. A defective power supply

usually shown by a white band across all output, although try cleaning the head first to make sure that the pins are not simply clogged up.



Don't forget to vacuum out the paper dust every few months...

PRINTER TYPE		Output
Printer		56x72
Epson 9-pin		120x144
Epson 24-pin		240x216
BubbleJet BM		
BubbleJet BC		
HP Deskjet		
HP LaserJet		
Atari Laser		
OK Save Cancel		

ST Club's Imagecopy lets you print to Epson-compatible 9 and 24-pin printers in various resolutions...

PRINT OPTIONS	
Page size	: 08.25 x 11.70 inches
L/R margin	: 00.50 inches
H offset	: 00.10 inches
U offset	: 00.09 inches
Orientation	: Portrait Landscape
H Alignment	: Left Centre Right
U Alignment	: Top Centre Bottom
Form feed	: Yes No
OK Save Cancel	

... and the configuration set-up includes page size and orientation.

PROFESSIONAL FOOTBALL MASTERS 4

VERSION

Quite simply the best Football management game for your computer. We have served thousands of satisfied customers during our 4 years of trading. Over 10,000 man hours (during 5 years) has been dedicated to the production of this game's constant improvement and it must be one of the most realistic and accurate representations of a professional football manager's job. Main features below:-

Managers : 1 to 4 Human players, Ratings, Performance statistics, sack and offers. 3 Difficulty levels, Manager of the month and season awarded. Pools, Pick any team in any division to begin with.

League & Cup : Premier 22 teams, Division 1, 2 & 3 have 24 teams, Play-offs, Tables. 7 Cup competitions with precise rules (2 legs, extra time, away goal rule, seeded draws, European Cup tables, 5 subs, non-domestic player restrictions etc.), Finalist route to glory.

Games : Yearly fixture/previous list, Week fixtures/results, Results from previous meeting with opponent (goes back up to 6 seasons).

Players : Real life statistics reflecting the start of 93/94 season with real positions, height, age. Live transfer market, Contract & wage negotiations, Preferred foot (left/right/both), Loans, Injuries, Training, Special talents, Trainees, Goalkeepers (separate skill categories), Defenders, Midfielders, Attackers & Utility, Retirements, Foreign transfers, Unhappy players, Top 10 Hot shots.

Team : Training, Tactics (15 different styles), Aggression, Formation allows specific player field settings (Left winger, Sweeper etc.).

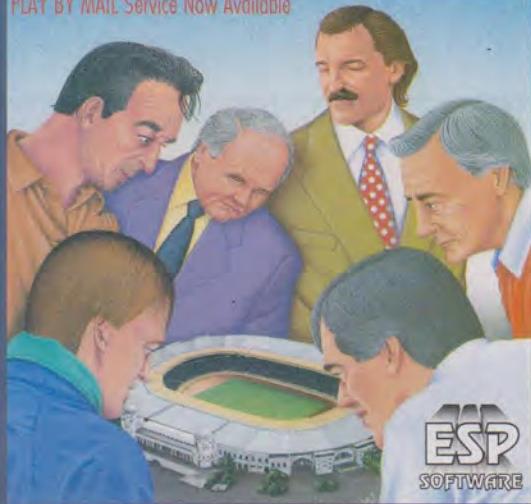
Club : Sponsorship, Ground improvements, View opponent, Finances The Match : Real time scoreboard reporting goals & injuries yellow/red cards, Sound effects, Interventions permitted at any time to change tactics, formations and make subs. Physical graphical penalty participation (optional). Over 80 different referees.

Other : Fast load/save, Printer access, 20 Options to set various game preferences, Instruction book, Easy to play, Technical support.

Plus : Over 100 other meticulous refinements impossible to list here.

Editor : Allows you to amend various items in saved games. £12 Extra  **Scottish :** Dedicated version details available upon request.

PLAY BY MAIL Service Now Available



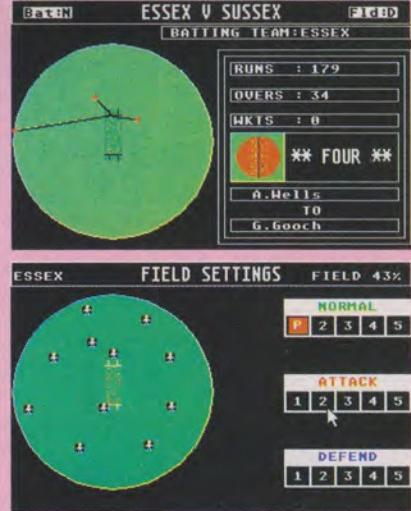
ESP
SOFTWARE

CRICKET MASTERS

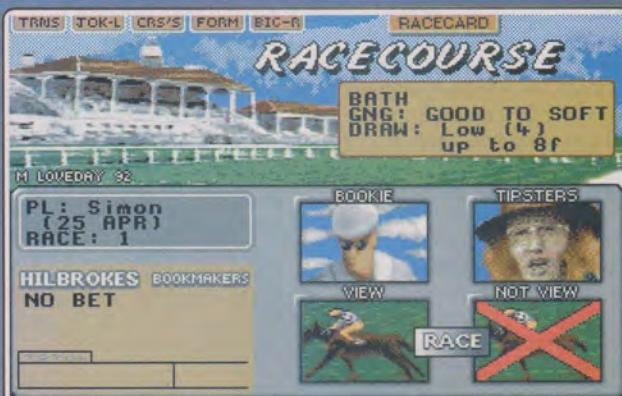
This is a purely managerial cricket manager game that concentrates on strategy and includes plenty of relevant statistics. The game has been designed and developed by a true fan of the sport. It replicates everything that a real manager has to contend with and it's a totally unique production that anyone with an interest in Cricket should experience. A summary of the main features is shown below:-

- AXA EQUITY & LAW 18 league county teams, 50 overs per game.
- 4 Cup competitions including Benson & Hedges, Nat West.
- 20 different match umpires with accurate names and strictness.
- Accurate player details Surname, height and age.
- 27 different player attributes, most have a direct impact on the effectiveness of each individual's actions during a simulated match.
- Easy player selection. All game text is clearly presented.
- Batting and bowling averages. Top batting and bowling tables.
- 3 Different training intensities to boost batting, bowling or fielding.

- Weather, pitch and light often make an impact on ground condition.
- Full match highlights let you watch the action ball by ball with full graphics and/or realistic sampled sound effects for significant events (Fours, Umpire decisions, etc.). Interventions are permitted at any time to change batting tactics or fielding placings.
- 3 Batting/Bowling classifications (Normal, Attack and Defend).
- Choice of 15 different field placings, Manager rating.
- Full scorecard results with best batting and bowling figures.
- Other staff (Physio, Groundkeeper, Scout) can be hired and fired.
- Annual league fixtures listing. Current week and last league results.
- View current cup competition draws and historic records.
- Real time transfer market. Player contract and wage negotiations.
- Sponsors, Printer access, Finances, Poor ground fines,
- 15 Options to alter game preferences, Load/Save game.
- Instruction book with plenty of examples.
- Plus many more fine details that we are unable to list here.



STABLE MASTERS V2



This game has been designed to be as close to real racing as possible. Five years of development by a clever racing expert has led to the second revision of this Flat Horse Racing Simulation. Up to 4 players can participate as Owner Trainers with the primary objective of becoming the top rated trainer, in respect of prize money won, at the end of each racing season (March to November). There are up to 35 other intelligently controlled computer trainers to compete against and compare your personal performance.

To achieve this aim you must discover a potential champion and train them so that they become capable of competing well and winning any of the 47 big prize money races (Handicap and Group), e.g. The Derby

To give you an idea of the tools provided in this game to assist you reaching your objective we have listed the main features below:-

- 250 horses each with over 60 independent variables that effect performance.
- 26 different race courses (2 all weather), real life characteristics mirroring the diversity and uniqueness of racecourses in the UK, descriptions of each are accessible in the game.
- 20 Jockeys who vary in ability and booking fees, Give orders and Receive feedback.
- Formbook and Win Summary Cards cover the previous 200 races.
- Animated race display or just the result. View Declaration List of other horse entries for races.
- Very informative report by Head stable lad, Tipsters, Bookmakers.
- Racetracks similar to racing press. Real life, Handicaps & Race Types.
- Viruses, Injuries & Vets. Load/Save game. Many other items included.

Version 1 is available upon request (Simple training & betting) @ £15.

ORACLE Horse Tipster

Open National Tipping Competition 1991 : Organised by Racecall, regulated by the Tote, this program achieved joint second. This led to a serious approach from a well known national book maker. Rejected in favour of supporting the public.

Winnings Statistics : 104 wins out of 166, as from 2/6/93 to 1/9/93.

Formula : This program tells you exactly what to do. You can NOT amend our system unlike so many other similar programs. How confident can you be in something that invites amendments?

Research & Development : Three years full time race analysis and experimentation to refine and test the prediction system.

Inside Knowledge : Plenty of unique hints from contacts in the know.

User Friendly : No racing knowledge required, easy to use, tutorial book.

Restricted Sales : As soon as our programs predictions have a prolific impact on the betting odds we will stop accepting new buyers.

Monthly Updates : Highly recommended option. If any update fails to break even we'll send the next one free of charge. From £25.

Price Increase : Highly likely. Buy now before success forces increase.



24 HOUR CREDIT CARD HOT-LINE
(0702) 600557



You could have won £44,836 with this HORSE TIPSTER Utility.

48 HOUR DISPATCH

CHEQUE PAYMENTS

If you have a guarantee cheque card or credit card please write its number on the reverse of your cheque, doing so will ensure dispatch within 48 hours of receipt.

OUR ADDRESS

ESP Software (STU),
32a Southchurch Road,
Southend-on-Sea,
Essex SS1 2ND, England.
TEL. (0702) 600557
FAX. (0702) 613747

MAIL ORDERS

All the programs detailed in this advert are only available by direct mail.

DESCRIPTION	STU	PRICE	TOTAL
Professional Football Masters V4		24.95	
P.F.M. Editor V4		12.00	
Stable Masters V2		24.95	
Oracle Horse Tipster (RRP £99.95)		75.00	
Cricket Masters		24.95	
Professional Football Masters V3		19.95	
Stable Masters V1		15.00	

CREDIT CARD NUMBER & EXPIRY E. & O. E. GRAND TOTAL

NAME _____ TELEPHONE _____

ADDRESS _____ POSTCODE _____

So who is Mr Average ST Review reader? Rather than use a crystal ball, Vic Lennard scans through the survey results...

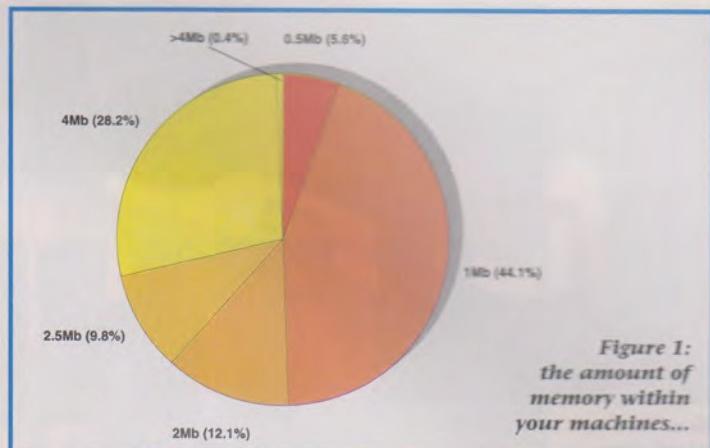


Figure 1:
the amount of
memory within
your machines...

SUMMING UP

Back in issue 24 (March 1994), around 1,000 of you dutifully filled in our questionnaire. With a current readership of some 17,000, this represents a six per cent return – pretty impressive, and for this you have my thanks.

The results make very interesting reading. Have a look at figure 1, a pie chart showing the amount of memory in your computer. Almost 95 per cent of you have one megabyte of RAM or more – a far cry from our first survey two years ago when over half of your computers were unexpanded 520s. This can be put down to *ST Review's* memory offers drive and the fact that very few modern programs will run in half a megabyte of RAM.

A second interesting statistic is the spread of ages with Mr Average weighing in at around 38! A significant proportion of you are in your mid-fifties and sixties, an indication of how popular the ST has become as an all-round home computer.

Which computer do you own? In many respects this is irrelevant, as most of you have expanded your machine's memory but it's interest-

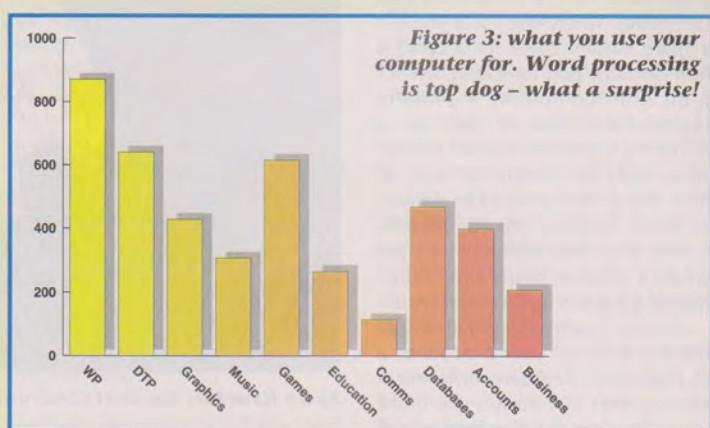


Figure 3: what you use your computer for. Word processing is top dog – what a surprise!

ing to see that just over 50 per cent of your computers are STEs, against just under 40 per cent of the earlier models. Perhaps a little more depressing is the small number of Falcon owners (five per cent), as shown by the pie chart in figure 2. As for TTs, my congratulations go out to all four of you, a figure that is put into perspective by the fact that the same number of people own Jaguars! You lucky, lucky people!

What do you use your computer for? From the bar chart in figure 3 you can see that top of the list is word processing with almost 90 per cent of takers – hardly surprising when you consider that *Write ON!* and *1st Word Plus* have appeared on our cover disks. Second up is DTP, and again the cover disk element must play a major part here; our issue with *Timeworks* was a complete sell-out. Additionally, the price of *Calamus* has dropped substantially over the past year. Perhaps the most surprising statistic is the popularity of databases, with almost half of you using your computer in this way.

Mono or colour? While only 35 per cent of you have a mono monitor,

which isn't bad considering that you haven't been able to buy an Atari-branded unit for ages, some 45 per cent own a colour monitor – and I'd be prepared to bet that a substantial proportion of these have the word "Philips" on them!

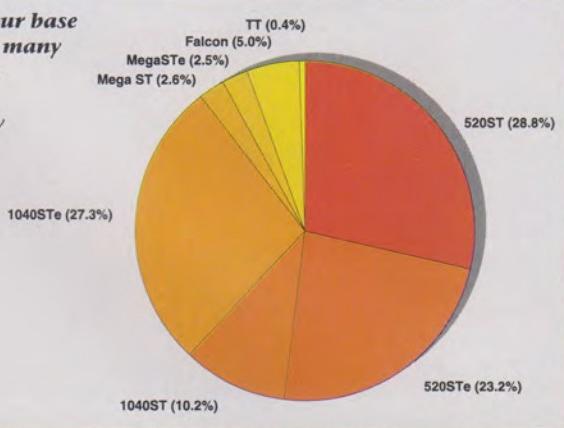
Does *ST Review* influence your purchases? Some 97 per cent of you believe so, a good reason for the thorough nature of our reviews. And is the magazine good value for money? Again, almost 92 per cent of you think so.

LIES, DAMN LIES...

I've spent too many hours analysing statistics in the past to make the mistake of placing too much importance on the results. But your replies were generally heartening – and we are acting on them. The *Fit To Print* series that starts in this issue is a direct result of finding out just how many of you already own a printer – given this, there's little point in running a series of round-ups!

Thanks again to all of you who returned a completed questionnaire – hope you enjoy the three free issues...

Figure 2: your base computer – many of you have upgraded the memory in a 520.





Brad Koda at a recent UK Atari show...



SIMPLY THE BEST

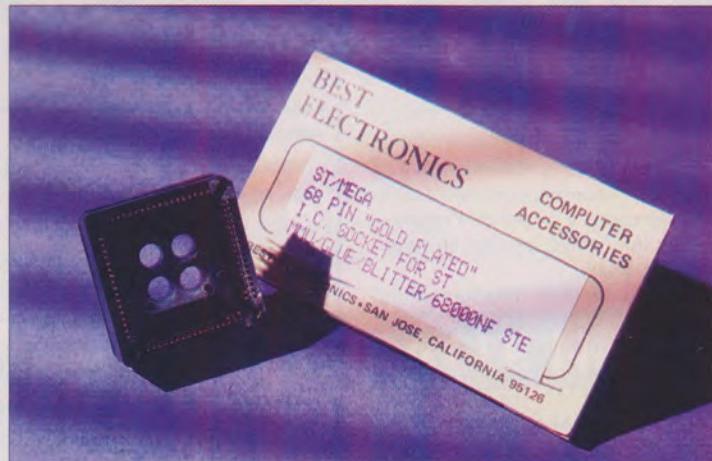
*Can't find that elusive bit for your ST?
Andrew Wright talks to Atari spare parts supremo
Brad Koda of Best Electronics...*

If any company can lay claim to having a unique selling point – known in sales and marketing jargon as a "USP" – it has to be Best Electronics. Where else could you get a spare battery cover for a Lynx, a new cartridge port for a long defunct 8-bit Atari computer, a genuine replacement mouse ball or a sparkling brass belt buckle emblazoned with the famous Fuji logo, all from the same supplier? The answer, as far as insiders are concerned, is nowhere – Best Electronics are the world's premier source for Atari-related spare and replacement parts.

Whether you're after genuine Atari bits and bobs for your 8-bit XL or a re-engineered keyboard mylar for a Falcon, Best Electronics are more often than not the first port of call for everyone else in the industry, including the big names like System Solutions and Compo.

LEADING FROM THE FRONT

Founder and main front man Bradley Koda is someone who has probably forgotten more about Atari innards than most of us will ever know. He built up the business himself using his skill and tenacity at tracking down components. Even now he does most of the work himself – fourteen hours a day, seven days a week – with a



Every item has the Best Electronics seal of approval – literally.

little help from a part-time secretary.

"I set up the company in 1982," he recalls, "but before that I had spent several years in the trade sourcing spare parts and components for all kinds of machines so I knew the industry inside out."

"Some people find it hard to understand, but I really don't mind if it takes me three or four years of pestering and negotiating to get what I want. In the end I do get what I want."

Patience clearly isn't the only virtue required in the spare parts

business. Storage space and good business sense are needed too. "I might buy a palette full of original spare parts, either from Atari or one of their OEMs (Original Equipment Manufacturers), and sit on it for ten years until it becomes something that people need and want to buy," Brad explains. "That takes up a lot of storage space; I couldn't afford to pay commercial rates for low cost spares so I rely on filling every spare square inch of my office, house and garage. Even my parents' garage is full to the top with boxes!" There's

obviously an element of forward thinking to the job too. For instance, some years ago it was discovered that some keyboard mylars – the flimsy plastic cards with keyboard circuit information embedded in them – were faulty and required replacing. The originals weren't available from Atari so Brad Koda set about redesigning them. Not only did this eliminate the faults but a better protective layer was applied to make the mylar more hard wearing. Of course, separate ones had to be created for the US and UK markets as well as the key German market, so this was no mean investment.

Fortunately for Brad, the original mylars are starting to wear out on many early STs. Many of them, of course, are still in everyday use, but Brad believes that over the next couple of years almost every machine will need a new mylar, particularly those where the keyboard is in heavy use. Luckily for those users who find themselves with dodgy keyboards in the next few months, Best Electronics have already got the answer!

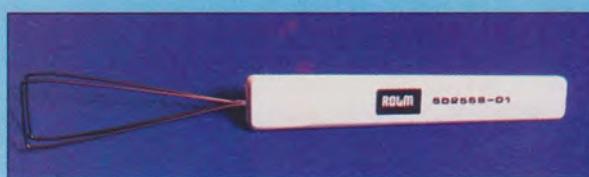
PART BY PART

So where do all the other bits and pieces come from?

"Atari is always the first stop but more often than not we have to go

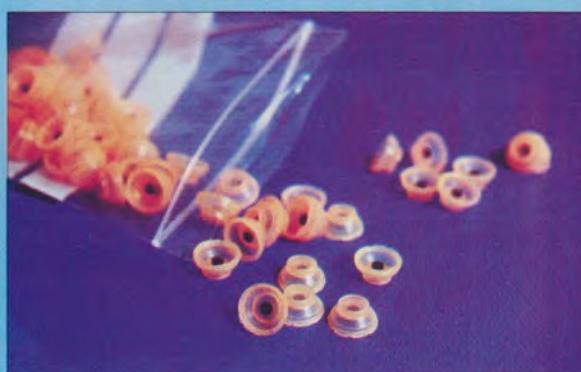
JUST A FEW BITS 'N' PIECES...

Best Electronics stocks literally thousands of Atari spare parts, many of which are so rare that Brad is probably the only person in the world with supplies. To give you an idea, here's a small art gallery...



No, not a device for torture – it's a key remover!

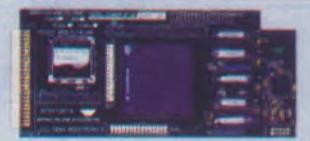
*Dodgy keyboard?
Send out
for a set
of Key
Clicks...*



back to the original manufacturer and ask them to produce a batch specially for us. In other cases, as with the mylars, it's more economic to redesign the part ourselves and have it made up to our specifications," explains Brad.

Among the 4,000 odd items in the Best Electronics catalogue, no one component is in more demand than another. Everything sells in reasonable quantities whether it's for an early 8-bit machine, the Atari laser, disk drive, joystick, keyboard or monitor.

The list is almost endless and many of the descriptions appear to need a degree in electronics engineering to understand! Obvious spares include mouse balls, locking plates to hold the ball in, new cables to replace



Brad stocks the Wizztronics' 68040 Falcon accelerator.

worn ones that have bent once too often as well as micro-switches, buttons and connectors. And that's just for the original Atari mouse. Imagine what the list for the ST itself is like!

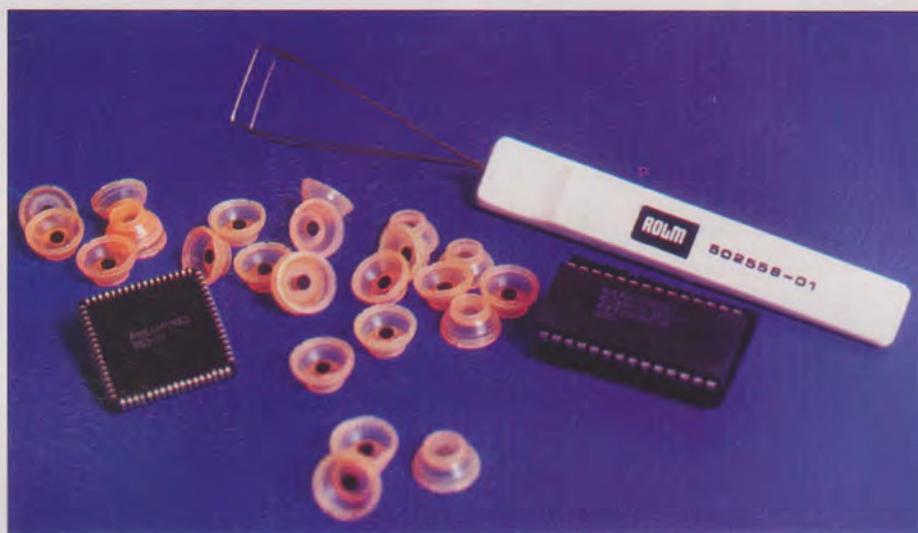
Apart from direct replacements, many of the items on offer from Best Electronics are improvements on the original. For example, you can get cables of different lengths – you might want your Mega's mouse and keyboard a long way from the main unit, in which case there are longer leads on sale.

Most of the vital Atari chips and sockets are available, including the much sought after Ajax chip that has taken Brad Koda several years to get hold of. This is a custom chip used to control high density disk drives in TTs and MegaSTes, but it is also required for other models that are being upgraded.

Brad is especially proud of his replacement 68-pin sockets for ST chips like the memory management unit (MMU), the glue chip and the blitter chip. These are gold-plated and wear much better than the



Atari's custom MMU chip – a rare item...



Just a small selection of stock items from Best Electronics.

originals, a fact that hasn't escaped specialist repair and upgrade companies like System Solutions/Atari Workshop, who, Brad claims, have fitted thousands of these gold plated sockets into customers' machines.

"Using a gold-plated, high quality socket cures all kinds of ailments from unexplained hang ups to regular random crashes when booting or running programs," points out Brad. "The tiniest loss of contact can have a pretty dramatic effect on an ST, causing all kinds of problems."

At only £4 each, they represent good value for money – in fact, next to the time honoured method of fixing a frequently crashing ST by picking it up a foot from a hard, flat surface and then dropping it, it represents the second most economic way to improve your machine's chances of smooth trouble-free operation.

From the more exotic side of the business come what could be called the non-standard parts. This includes the Atari brass belt buckles, adhesive Fuji logs, sew-on badges and even replacement flashes for the case. My favourite has to be the 4160STe flash that can quickly and easily replace the somewhat down market 520STe version just above the disk drive light on the right side of the ST/STe units. What better way could there be of showing off your 4Mb upgrade to your mates! I'm only sorry that I was

so busy listening to Brad's stories that I forgot to buy one... Even that isn't a problem, though, because most of Best Electronics' business is done via mail order. And with customers as far away as Israel, Australia, Japan, South America and the rest of Europe, it can honestly claim to be an international business. For help or pricing, simply telephone Bradley Koda on 0101 408 243 6950 or fax him on 0101 408 243 8274. All you need is an international charge card such as Visa or American Express and your parts will be in the post.

HOME AND AWAY

Brad often attends shows in the UK, so expect to see him around if you're a regular visitor.

"The UK Atari scene is much healthier than the US one," Brad told us. "Much of my business is done with big UK names so it's important to come over and be seen. I always bring a good selection of parts with me, so the trip usually pays for itself, at least in terms of the air fare if not the time."

A new catalogue should be out soon and for the first time it will include tips and hints for Atari owners of all kinds in its 150 pages. It's also three times bigger than the last one, so it should make interesting reading.

Demand for the old Atari 8-bit kit

is still remarkably high, according to Brad. "Atari owners tend to be dedicated as much to the Atari brand-name as anything else," he points out. "Many of them have Ataris of various generations and all of them are in use. Even in my own office, I rely on an old Atari 800 hooked up to an 820 printer to produce all my product labels!"

Some of the requests are odd, to say the least. "One woman rang me up in a real panic," recalls Brad. "Her mother was in a rest home and expected to pass away at any time but her last request was to have a 5200 controller in her hand when she did so. I'm happy to say, I was able to help her on her way..."

Oddly enough, Best Electronics is one of the companies least likely to be affected by the slow decline in the Atari market.

"I'm still making a living out of supplying parts for computers that were discontinued ten or fifteen years ago. Ten to fifteen years from now, I'll still be here."

How many people in the Atari market can say that with such confidence?

Thanks to Karl Brandt at the Atari Workshop for the loan of various items for purposes of photography.



... while this one controls the ST's floppy drive.

New Age PDL

£1.75 EACH

Unless otherwise stated

All disks require a COLOUR system unless: 'H' - High resolution monitor required, 'A' - Any setup suitable.

FALCON 030 - ALL HD DISKS

- FALC 2 - Falcon Boot 1.2, Backward 2.24 (ST emulator), New Deckap, Text Files, Desk Copy, Deskpic 1.05, Syntario, DC Xtract 2.1, Revive, SpiritED 1.3 (utils).
- FALC 9 - Grotesque [Excellent!], Gouraud, Speeder, Plasma 30 & 50, Intel + more! [demos].
- FALC 31 - Temptation! The first disk of an EXCLUSIVE pack of JPEG pictures of gorgeous girls. Excellent quality pictures and the three disk pack contains no less than ninety pictures! Yes 90! Disks 2 & 3 on FALC 32 & 33.
- FALC 35 - Netlock 3.1.1 - 2 Meg memory+; Brilliant dungeons and dragon game.
- FALC 36 - RDE 3.1, Toswin 1.1, Iha 2.22, Zoo 2.1, Zip 2.3, Gen Bench 3.25, Good Backup 1.13, Boot Init 1.1, Ecopix 1.5, Frontier, Shabu 1.3 (utils).
- FALC 37 - Fractal Playtime, Gemview, Delpaint, Gfx Gif, Binaris 2.0 + more! [art].
- FALC 52 - System Audio Manager 1.1 - assign samples to events, Digitape 2 demo (music).
- FALC 77 - Emacs 3.11, Everest 1.5, KM Term, Atomix 3.5, X-Menu 1.3, Profile 1.43, Rezboiler (run RGB stuff on VGA monitor), Fullres 1.01, Swabs, Dabock 1.0, Fuzzy Clock 1.14.
- FALC 96 - When Dreams Become Reality (RGB), Warum (RGB), Inconver (RGB) [demos].
- FALC 103 - Oxyd (excellent!), Des Lasers et Des Hommes (3D shoot em up), Masters of Chaos (Dungeon Master clone), Tron, Ishar Advisor, Mario Kart demo, [games].
- FALC 106 - Falcon Flight Demo - real time zooming demo over fractal landscape + great music.
- FALC 107 - Crime by the DNT demo, Magnet by Alphatech, Bobo 1, All RGB/TV only!, [demos].
- FALC 109 - DMR icons - two large sets of replacement icons, Before Down screensaver 1.25.
- FALC 110 - Videl - easy to use TGA viewer, Rainbow demo 1.5 - Truecolour art package.
- FALC 112 - Mahjong II - German version of this classic tile game. Disk approx 1/2 full.
- FALC 113 - Mahjong demo (4meg+) - digitized pictures of a woman modelling a skimpy bikini
- FALC 114 - Multi-Dialogue 1.3, Master Brown 3.2 - excellent text file viewer, T-Cache 6.0.
- FALC 115 - Octalayer 0.8 - another 8-track tracker ported from the STE + docs + source code.
- FALC 116 - Popstar was a Blade Runner (4meg+) new demo by EKO, very good, RGB/TV only.
- FALC 117 - POV Raytracer 2 on 2 disks, zipped & expands to nearly 5 meg! £3.50.
- FALC 119 - Moving Pixels Demo (VGA) - 4 meg+ - a mega-massive demo that requires 10 megsbytes of hard drive space! From Australia, this basically shows off the Falcon itself - the sort of thing you'd see in a shop window, covering graphics, sound and productivity. Very good. Five disks - £8.00!

GAMES

MEGA-GAMES PACK ONE!

No less than ten disks crammed to the brim with archived games (de-archiver and printed instructions supplied) to squeeze on an amazing 117 games covering board/puzzle/strategy/arcade and adventure. For a full list ask with your order or if not ordering, send a stamp. All should run on a colour system with 512k and be STE compatible! You will need about twenty disks to unarchive these disks onto! AMAZING VALUE FOR MONEY.

117 GAMES - JUST £14.95!

- GAME 168 - Napoleon - a 'Risk' style game of war and strategy. 'H'.
- GAME 185 - Oxyd 2 - the sequel to the brilliant Oxyd, much harder than the original. 'H'.
- GAME 186 - Tetris - new Tetris type game. 'H'.
- GAME 11 - A Question of Snooker, Pinball, Devastator, Roll n Rudge, Ranger.
- GAME 78 - Popeyes - a pop music game with adult themes.
- GAME 83 - Granddad & the Holey Vest - superb animated adventure. 1 Meg+.
- GAME 104 - Blat! - A very nice version of Temte, STE ONLY.
- GAME 117 - Fast Freddy - lovely platform game with superb graphics.
- GAME 131 - Glass Buttock of Thorg - save the land from the evil buttock! - 1 Meg+.
- GAME 132 - Psycho Pig - a two disk platform game, very cute: £3.50.
- GAME 139 - Granddad II - the sequel to Game 83, comes on 2 disks 1 Meg+, £3.50.
- GAME 148 - Operation Blue Sunrise 3 - massive STAC adventure game. 1 Meg+.
- GAME 150 - Course Angler 1.02 - go tackle fishing on your ST!
- GAME 151 - Sim Pig! - a brilliant pig farm simulation! Like Sim City & Sim Earth.
- GAME 157 - B17 - bomb buildings, F-16 - very good fight game. 8 missions.
- GAME 178 - Argon, Out Codename Bomb, Pyramid, Disk Hunt, Sintel, Turbo, War Jeep, Plumber, Picker, Planet Man, Uboot, Ypsilon - 13 games!
- GAME 179 - Asteroid, Bang, Battle, Bellum, Quiz, Braille, Chunks, Europe, Explode, Fuzzball, Gemi Invaders, Megaroids, Micro, Octopod, Othello, Pax Man, Plant, Rockfall, Tanx, Tennis, Wall Street, Zappy
- GAME 180 - Mystery Well, Deep Lair, Football, Harris Goes Skiing, Haunted House, Invaders, Jumper, Room, Stoneage Deluxe, USA, Zyx, Firestorm.
- GAME 181 - Utos 1.5 - very slick STE only Oids/Grav type game, Endurance - 3D game.
- GAME 183 - Towers - a great new Dungeon Master Clone - the best yet! 2 disks (1Mb+) £3.50.
- GAME 187 - Karidor Champion, Hedor and the Mutant Vampire Tomatoes - nice platform.
- GAME 188 - Premier Mahjong II - excellent version of this superb tile game. 60Hz only.
- GAME 189 - Cud Lee's Quest - platform game for kids, Mindmelt - roleplaying fantasy game.
- GAME 190 - Quest to Knowledge - quiz type game set in a maze arena.
- GAME 191 - Walls of illusion - yet another Dungeon Master Clone, good one though. 1 Meg+.
- GAME 193 - World Fighting Championships - beat up opponents from all over the world.
- GAME 198 - Roll-It - ingenious puzzle game with 40 levels, a sort of ball/tile game. 1 meg+.
- GAME 199 - Skulls - A Flash STE only version of Minesweeper from the PC, good 1 meg+.
- GAME 201 - It's A Mug's Game - good overhead view boxing game with nice graphics etc.
- GAME 204 - Gone to the Dogs - bet on the races! Grav - good arcade game based on Oids.
- GAME 209 - Money Mania - collect all the money from each screen, loads of nasties etc. Good.
- GAME 210 - Ruthless, shoot em up, Spherical - good platform game, Serendipity - good puzzler.

BUDGIE GAMES - £2.75 EACH

- BUGAM 89 - Horse Racing Simulator for 1 to 5 players. Buy/sell and bet!
- BUGAM 104 - Jetpack - another faithful clone of a classic Spacey game.
- BUGAM 113 - Football Tacticton - formerly a £20 release! Excellent!
- BUGAM 121 - Super Scramble - take a trip to the 8-bit days with this shoot 'em up.

DEMOS

- DEMO 356 - Kuba Club Culture Mix Pack 1 - 6 great bits of club music.
- DEMO 355 - The Bruce Demo - nice auto-running multi-part from Diamond Design.
- DEMO 351 - The Edge of Panic Demo - a good STE only demo by ACCS.
- DEMO 350 - Exodus demo - another good STE only demo by ACCS, 1 meg EXACTLY!
- DEMO 342 - Sid James Demo - clips from the films - STE only 1 meg+, 2 disks £3.50.
- DEMO 335 - Redcity is a Lie - a 13 screen demo by Psychomix, very good. 1 meg+.
- DEMO 333 - Cemetery demo - a good digi-drama demo.
- DEMO 330 - Beginning of the Ending - this demo actually plays in the background of a game of breakout which is played with 5 balls! Hows your concentration.

ART & GRAPHICS

- ART 1 - A disk full of 23 miscellaneous utilities including viewfig 1.2.
- ART 51 - Crockett 1.36 - latest version of the best ST art package! 1 Meg+.
- ART 128 - Gemview - new version of this superb viewer/converter.
- ART 157 - PAD 2.4 - English version of this high res drawing package. 1 Meg+.
- ART 172 - Paintshop Plus 2.03 - A commercial quality drawing package.
- ART 187-196 - Temptation! Volume 1 - the first pack in a whole new range of top quality pictures of tempting girls! Two versions [please state which] - one for STFM and one for STE which takes advantage of a 32,768 colour palette! EXCLUSIVE to New Age PDL! Ten crammed disks at just £15.00!
- ART 209 - Erotic Dreams slideshow 1 - all pictures of Supermodel Cindy Crawford.
- ART 212/213 - POV Raytracer, the best raytracer around! 2 disks: £3.50.

SOUNDTRACKER MUSIC

- TRAC 129 - Four, Progfunk, Cul 2, Cut 3, Federal Force, Rave 1.
- TRAC 128 - Con, Show House, Jewel, Spasong, Celtic 6, Koplik, A-Team, Sweet Dreams.
- TRAC 127 - More Lemmings, Backpoppin, Psychic 1, Bushfire, Donna 2, Ace Bass, Echoing.
- TRAC 126 - Scrambled Mind, I+World, Wyne 1, Hope Part 2, Lotus Turbo 2, H-Metal.
- TRAC 125 - The Loader Final, Artificial, Finally I Play, Space Journey, SIT.

WORDPROCESSING & DTP

- WORD 1 - ST Writer Elite, EDI Text, Zap ST, ST Page, Typist, Desk Accessories. 'A'.
- WORD 4 - First Word + tools, Grammar checker demo, Spell Binder, Text Filter. 'A'.
- WORD 5 - Calamus Demo, no save function but you can print. 'H'.
- WORD 8 - DB Writer 1.4 - very slick wordprocessor with many features. 'H' 1 Meg+.
- WORD 9 - Calamus Support disk - loads of utilities for Calamus and fonts etc.'H'.
- WORD 12 - Papirus Office Demo 2.26 - good document processor with fonts etc. 'H'.
- WORD 13 - Calamus S demo - fully functioning except save. 2 disks. £3.50. 'H' 1 Meg+.

BUSINESS

- BUSI 2 - Sheet 2.0, Dbase One, First Base 1.6, Home Budget Template. 'A'.
- BUSI 4 - Opus 2.2 - brilliant spreadsheet. 1 Meg+, 'A'.
- BUSI 6 - Double Sentry Book Keeping System, Address Book. 'A'.
- BUSI 7 - Astobank 1.1 at - complete home accounts system - colour only.
- BUSI 11 - Compact Office Management Program 2.03 - for business, tons of features. 'A'.
- BUSI 12 - Inventory PRO - keep track of stock levels, GP Patient Care for GPs. 'H'.
- BUSI 14 - Data Techniques 1.41 - easy to use and powerful new shareware database system. 'A'.

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- UTIL 4 - Pools 2.5, ST Init 3.4, Switcher - loads programs faster, 20 DC utilities. 'A'.
- UTIL 5 - F-Copy 3, DC Showit, Desk Manager, Disk Scan, Mono Emulator 5, Spool, DC Stuffer [loads 32 occs], Speech Synthesiser, Mouse Accelerator. 'A'.
- UTIL 6 - James The Butler, London Phone Codes, MenusYS, Pinhead, Super Calendar Batch Startup, Auto Sort, Postmortem, No Bombs, E-Disk, 9 Quick Utilities. 'A'.
- UTIL 12 - Jam Packer 4, Wind-XES (Modulator control panel), Fast Print 0.4, Clock Set. 'A'.
- UTIL 13 - German to English translator, fast Print, DC Salvage, MINT, Macel 3.0. 'A'.
- UTIL 14 - Printer Drivers inc Canon Bubblejet, Qume Daisywheel, Brother + Epson. 'A'.
- UTIL 16 - Chameleon - loads and unloads accessories without having to reboot, Sticker 3.0 ('H').
- UTIL 17 - Definitive File Selector, Super Virus Killer, Benchmark. 'A'.
- UTIL 19 - Your Second Manual, Jokes, GDOS info, Bombs info + several magazines. 'A'.
- UTIL 30 - Superboot 8.1, Build Your Own Scanner, Report Writer, Disk Cleaner. 'A'.
- UTIL 35 - Cheetah 1.1 (high speed copying util), Rainbow TOS patches, Unhaz 2.2. 'A'.
- UTIL 38 - Printer Drivers inc: KIPX 1124, Star LC24, STAR NCW printer, Brother, Canon, Citizen, HP Deskjet, Oki, Qume Taxan, Toshiba, Ritek, Atari. 'A'.
- UTIL 40 - Loads of packers inc: Amiga 3.5, Automation 5, Dragon 3, Fire 2, Ice 2.4, Pompey 1.9, Speedy Packer 2, Branch Always Packer + Multi DePacker 1.5. 'A'.
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- UTIL 45 - Koos Disk 2.01, Terra Desktop 1.36 - replacement desktops. 'A'.
- UTIL 46 - STOS Shoot em up builder kit 0.6 - colour only.
- UTIL 53 - TOS Version 1.0 - allows you to run programs that don't run on your TOS. 'A'.
- UTIL 54 - Message Scroller, Archiver Shells, Envelope Printer Demo, Magic Cracker. 'A'.
- UTIL 57 - Revenge Disk Display 3.0, Wordfinder 3.0, Desktop.inf configurator. 'A'.
- UTIL 58 - Career Themes Inventory and Personality Tester - great fun!
- UTIL 59 - Neodeck patches - upgrades 3.01 to 3.02 and 3.02 to 3.03. 'A'.
- UTIL 60 - JC Label 1.3, Jon-Da 1.7, Flowchart Compiler, Boot Time 2.0, Multisync. 'A'.
- UTIL 62 - BJ Chrome 1.1, Disk Master, Silly Mouse, Auto Load, Blitz. 'A'.
- UTIL 66 - Nation X utility disk - over 150 programs! Everything you need to get you started! Includes disk utils, diary, virus killer, packers etc. - highly recommended! 'A'.
- UTIL 67 - Label CAD 2.2 - design cards, posters etc. Document files on UTIL 68. 'H'.
- UTIL 70 - Route Finder 1.8 - like Autoroute - plans journeys for you, SpiritED 1.3, Die Uhr. 'A'.
- UTIL 74 - Award maker - easy to use program to create certificates with nice fonts, borders.
- UTIL 75 - Idealist 3.4 - file printer that saves up to 80% of paper used! 2 disks £3.50. 'A'.
- UTIL 77 - Before Dawn 1.25 - latest and biggest version of this screen saver. 2 disks £3.50.
- UTIL 79 - Spectrum Games - a disk full of games to go with the emulator on UTIL 55. 'A'.
- UTIL 80 - Teradisk 1.38 (latest), X-Jet 097, Curtains - protect your ST from snoops. 'A'.
- UTIL 82 - Beropress 2.6 - create posters, banners, gift cards, letters etc. 'H'.
- UTIL 83 - Spectrum Emulator 2.07 - latest version - 2 disks + example prog. 1 meg+. £3.50.

MUSIC & MIDI

- MUSIC 1 - Noisetracker 1.5 - a popular soundtracker creator with samples & source.
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- MUSIC 11 - Arpeggiator, Zeppelin, MIDI Beat Project, Jukebox, MKS-50. 'A'.
- MUSIC 12 - Henry Cow Sequencer, Composer. 'A'.
- MUSIC 13 - Drum Patterns for Cu-Bass in standard MIDI format. 'A'.
- MUSIC 16 - Yamaha PS790 Editor, includes loads of sample voices.
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- MUSIC 29 - Kawai K1 synth sounds. 'A'.
- MUSIC 31 - SOX 1.0, Midi Mover, TXB1z Editor, Real Drumming. 'A'.
- MUSIC 32 - Tri-Sound Sequencer [Not STE], Disc Play 2.45, In control.
- MUSIC 33 - DTX File Reader 0.1, DTX Catalogue 1.0, Q-Play 3, Make One, Separate. 'A'.
- MUSIC 34 - SOS 64, Guitar Professional, Unijam, Play Em 1.0, YM2149 Editor. 'A'.
- MUSIC 35 - Roland D5 Series Sound Banks for D5, D10, D20, D110 and GR synths. 'A'.
- MUSIC 36 - Final Score 2.0 - score writing system. 'H', EKSEQ 1 - 100 track sequencer. 'A'.
- MUSIC 37 - Midi Step 1.2 1 meg+ - 16 track sequencer for step-time music operation.
- MUSIC 38 - 790 Dump, ST Sound 2 - record, play, compress and edit samples.
- MUSIC 39 - SSP PD Voicepack - patches for the Roland GM-70, TXB1z, Roland D110.

EDUCATION

- EDUC 1 - Kid Music, Kid Notes, Kid Piano, Kid Puzzle, Kid Graph, Rebus Writer.
- EDUC 7 - Michael's Big Adventure - colourful graphics, easy to play. Age 8+.
- EDUC 9 - Bodyshop, Computer School 2 & 3, Butterfly in the Park.
- EDUC 20 - Easter Egg Hunt - pleasant adventure for 7-12 yrs without violence etc.
- EDUC 21 - G.C.S.E. Higher Maths Grade Tutor, Franglais 3 - French Tutor.
- EDUC 22 - G.C.S.E. Chemistry Tutor - all you need to attain grade C' or above.
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- EDUC 39 - Mini Magic Storybook - cut down version of the successful commercial packages.
- EDUC 40-42 - World War II - look at life on the Home Front during the war. 3 disks. £5.00 'H'.
- EDUC 43 - Professor Clever 2 - teaches kids aged 5-11 about numbers, spelling and time.

PROGRAMMING

- LANG 1/2 - Sozobon C Compiler release 2. Includes documentation, shell etc. £3.50.
- LANG 5.9 - GNU C++ Kit - Hard Drive + 2.5meg required, not for novices! 5 disks £8.00.
- LANG 13 - Professional GEM guide - 17 chapters of tutorial with C source.
- LANG 16 - STOS Tutorial and various Basic programs.
- LANG 27 - GFA BASIC v2.0 - GFA Expert - a nice GFA Basic tutorial.
- LANG 29 - STOS Tracker - adds a new set of STOS commands for Soundtracker.
- LANG 36 - STOS Extensions: Missing Link, Misty, Blitter, MIDI, STE + 7 more!
- LANG 37 - STOS Software pack 1 - millions [almost!] of routines etc.
- LANG 41/42 - STOS 3D - brilliant extension allowing you to program in 3D. 2 disks £3.50.
- LANG 43 - A disk crammed to the brim with STOS ACBs.
- LANG 44 - STOS Adventure Creator 1.03 - write your own graphic adventures. 'C'.
- LANG 45 - Head 'n' Serve Sozobon C - a very easy to install version of this compiler. 'A'.
- LANG 46 - XUSP 2.0 - object oriented programming language with a huge 84k manual.
- LANG 48 - STOS Extra Extension 1.91a - adds about 52 new commands to STOS. 'A'.
- STOS 13 - The latest issue of STOSSEK disk magazine, tutorials, articles, reviews etc.
- STOS 20 - 68000 Programmers Library - hundreds of routes for games. £2.95.
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BEAT 'EM UP!

Although almost every sequencer available today has some kind of function for creating and editing rhythm patterns, they may not always be as creative as you would wish. We all hit a creative block at some point when writing a song, so what can we do about it? Although you probably use just one sequencer, that struggle for inspiration can lead to unexpected surprises if you can find a new way of composing. This leads us nicely into *Drumatix*, a slick new program from Germany that may help inspire new rhythmic ideas...

DRUM MACHINE

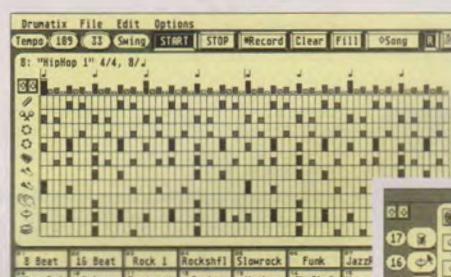
What makes *Drumatix* different from sequencer drum editors or dedicated drum machines? Within a pattern, *Drumatix* can play 64 individual drum instruments in 64 different styles, which can then be chained into eight songs. For each drum instrument you can assign one of 128 clearly-defined icons, each representing a type of drum or percussion instrument, a name, the MIDI note number, a MIDI channel, the note length and 12 velocity steps which are represented graphically. Impressive, eh? Talking of graphics, this is another piece of

KEY FACTS

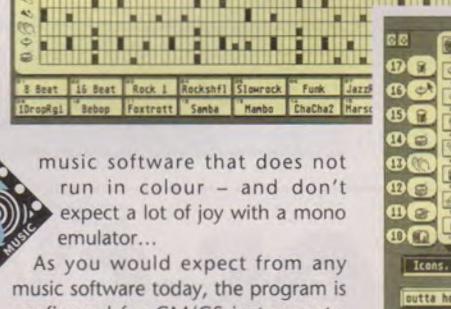
Product: Drumatix
Company: Newtronic
Contact: 081-691 1087
Price: £79

SYSTEM
Minimum Memory: 1Mb
Resolution: High
Computer: Any

Need a solid drum beat? Drumatix is a groove designer that should ease the difficulty in creating that up-front beat. Kevin Pawsey dons his drumsticks...



A "Hip-hop" pattern shown on the main rhythm grid. Select a style from the menu beneath.



music software that does not run in colour – and don't expect a lot of joy with a mono emulator...

As you would expect from any music software today, the program is configured for GM/GS instruments. The program is available in 1Mb and 2Mb versions; you can load many more patterns into the latter. Pretty average for a drum machine you may be thinking, but *Drumatix* has a couple of tricks up its sleeve that makes it very easy to create impressive sounding grooves.

VELOCITY MAPS

To enter a note, just click on the relevant space next to the instrument of your choice. If you have ever step-entered a drum pattern, you will know how bland this can sound. What you need is some velocity variation. *Drumatix* has a velocity map that offers 12 velocity steps per tick. When creating your groove, the velocity for each note is automatically taken from the velocity map so helping you to create some very lively and realistic patterns.

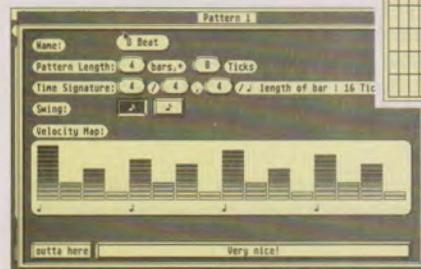
The velocity map provides a second function which is used to control an intelligent, real-time fill



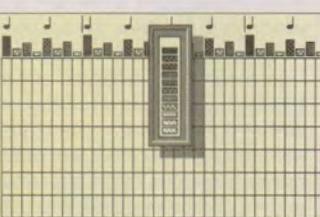
There's a huge range of icons that you can select within the Instrument Map to visually identify each part of a kit.

function. When you listen to one of the supplied patterns you notice that there is more going on than meets the eye. These notes are added depending on style and the velocity steps. Set the fill value and your simple pattern is transformed into something that would make real drummers jealous. It's a great way of

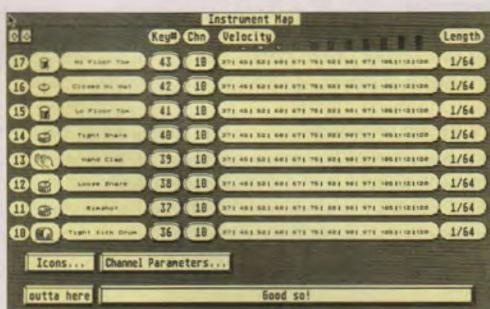
By clicking on a velocity value at the top of the grid, you can individually adjust a velocity level using the 3-D slider.



The pattern screen offers various parameters. Select pattern length, time signature and the velocity map for the first bar.



The Instrument Map lets you set the velocity parameters, MIDI note number and the MIDI channel.



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EASE OF USE



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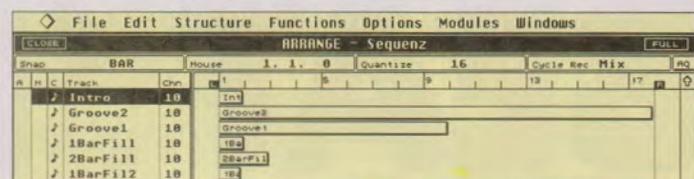
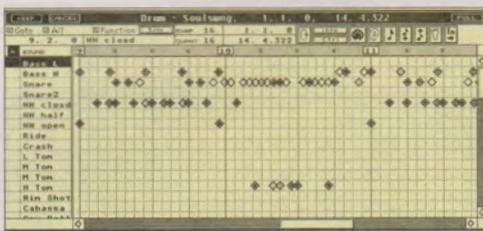
What makes a set of drum patterns sound great? It has to be the *feel* and this can only be obtained by using a real drummer playing a set of MIDI pads connected to a sequencer. A real drummer constantly pushes the beat, adding different fills and nuances according to the style. Moreover, a real drummer doesn't sound like he has been heavily quantised and I am pleased to say that these files sound as natural as the moment they were first played by MIDI drum pads.

The disk contains a wide variety of different styles although it would have been nice to find them categorised in style folders; a little searching is sometimes necessary to find the style that you require. Styles available include ballad, blues, funk, jazz, rock, shuffle, soul and swing. There are several files of the same style offering variations so you should be able to find exactly what you are looking for.

The files are organised as *Double Grooves* and *Mini Songs*. The idea of the *Mini Songs* is that you can load in the data and have all the basic elements of a song immediately at your disposal, ready for the addition of other parts. The Double Grooves vary in length and consist of two patterns that

A soul-swing beat in Cubase's Drum Edit page.

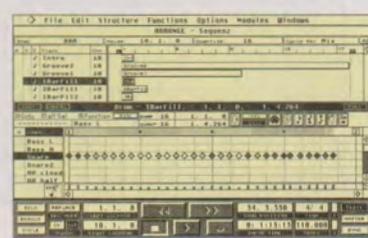
Note the snare drum pattern which is only possible when played by a real drummer.



Each file can consist of an introduction, a variation of the main groove and a selection of one and two bar fills.

complement each other from the same style. Also included for each file is an introduction and a selection of fills. The provided drum map is for GM/GS instruments so those of you with Yamaha, Korg and other non-General MIDI equipment will have to alter their settings.

ST REVIEW COMMENT: "A great variety of top class beats that can provide a solid foundation for almost any arrangements. The Double Grooves are a nice touch and essentially double the number of rhythms on the disk. Good thinking guys..."



A one bar fill pattern from a heavy rock beat. The whole bar consists of just a heavy snare drum - essential for annoying the neighbours!

A COUPLE OF SWELLS

Kevin Pawsey surveys two new sets of MIDI Files...

JAZZ RIFFS

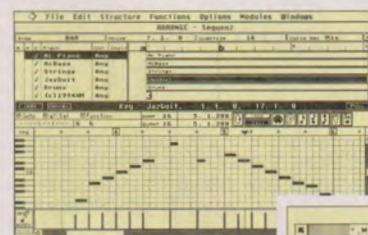
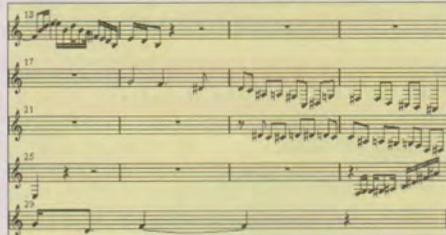
HEAVENLY MUSIC • £17.49 • 0255 434217

Do your guitar parts sound like a competent guitar player is performing them? If you don't know how a guitarist bends notes, shapes chords and selects melodies then the answer is probably "No - but I wish they did!". Help is now at hand from Heavenly Music.

Jazz Riffs are a collection of MIDI Files that provide a wide selection of standard jazz guitar riffs. They are GM-compatible so there's no wasted time selecting relevant sounds; just load up and hit play. The first thing you will probably notice is that while the files capture the spirit of a guitarist, sparkle is lost due to the audacious use of quantise. While this is partly due to the intention of them being utilised in your own compositions and possible import problems, it would be nice to hear data of this nature left "raw". That said, the use of pitch bend on some of the files is excellent and helps with the authenticity.

The riffs are placed in folders under the categories of dominant, major, minor and II-V7 (2nd to dominant seventh) from which you then select the

Jazz riffs are either 2, 3 or 4 bars in length. Notice the number of empty bars due to a bar's rest followed by a one bar count-in between the riffs.

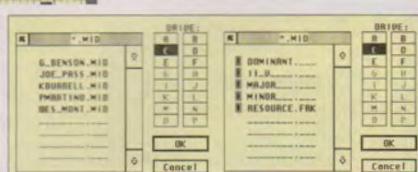


Most of the guitar riffs are based on arpeggios of the chord style that you have chosen, although they are heavily quantised.

style of a particular fine jazz guitarist such as George Benson, Pat Martino, Kenny Burrell or Wes Montgomery. You could buy this disk to find out what makes your favourite guitarist tick and borrow some ideas for your own music.

Within each style file are a variety of riffs over most chords, so you should be able to get pretty close to what you are after. If not, just cut, transpose and paste; it's pretty easy to get good results.

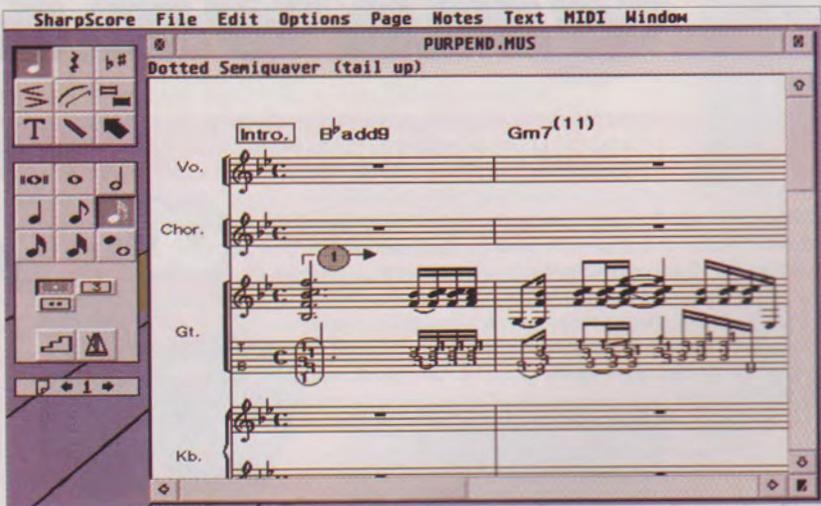
ST REVIEW COMMENT: "If Jazz is your forte, then this disk will be of interest. They would be better still had they been recorded using a MIDI guitar and not so heavily quantised but, as usual with Heavenly Music's MIDI Files, the sounds are well chosen and the accompaniment is solid. I just wish the guitar riffs lasted a little longer..."



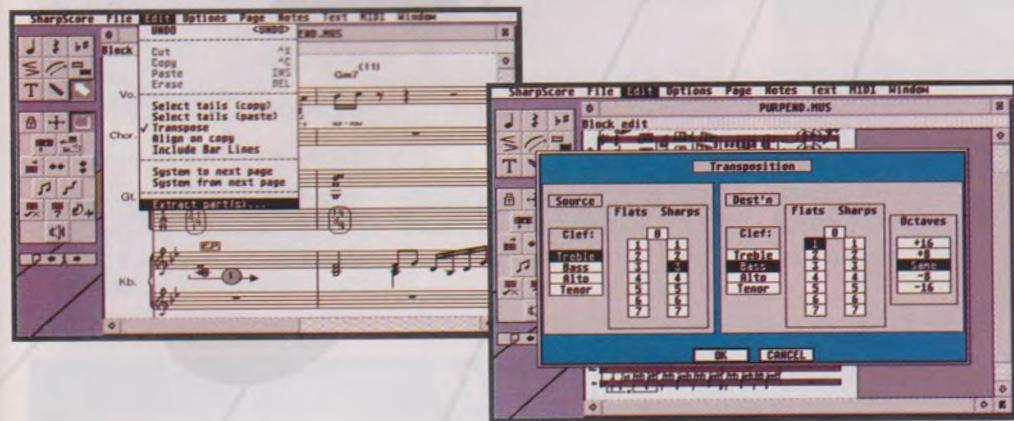
Select a riff by the guitarist that you wish to imitate and the chord style - like George Benson-style riffs over minor chords.



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GAMES GALORE!

Tina Hackett separates the best from the rest in our round-up of platformers...

What exactly is a "platformer"? The term is used regularly by games companies who presume that you know what it means, but it covers a multitude of different games. However, they all have one vital ingredient; they must contain levels or "platforms" within the game that require you to jump or find your way around.

Another common ingredient is that gameplay is often based around destroying enemies found within the levels. Platformers are also particularly noted for having a cute looking sprite for a main character! Perhaps this has contributed to the genre's downfall in that they have earned a reputation for being aimed at children. They have also been scorned for not having a great deal of intellectual depth and so requiring little skill or thought.

Let's redress the balance and blow away this misconception. If you take more than a cursory glance, it becomes very clear that these games require a great deal of skill. Hand to eye co-ordination is vital for this type of game as is judgement and timing. Many platformers also contain puzzle elements that need clever and logical thought.

So for those of you who have looked down your noses at this type of game, it's time to take a fresh look. This round-up looks at the best platformers to have graced the ST...

JAMES POND 2: ROBOCOD

Not the most recent of games, admittedly, but not looking in the least bit dated, *Millenniums Robocod* is a superior platformer of the highest order!

The sequel to *James Pond*, *Robocod* has met with great success across most computer formats including the ST and is now available on the Kixx XL budget label so providing excellent value for money.

Taking on the role of James Pond, a secret agent who is a fish no less, you must save the Toy Factory from the evil Dr. Maybe who has booby-trapped the factory with time bombs disguised as penguins – and note the sponsorship deal with Penguin biscuits here!

Nine huge levels await you and progress is hindered by enemies like the vicious chess pieces, angry flowers and typewriters. Protected only by your "ExpandoSuit" that allows you to stretch and climb across ceilings, you need to defeat these baddies by jumping on them and so save the factory from destruction.

This all adds up to some of the most chaotic, fun gameplay possible and the pace of the game has been worked out to perfection. The cheery, colourful graphics, humorous sprites and jaunty accompanying soundtrack result in a highly addictive, brilliant title.

Overall Rating: 83%

Travel across ceilings aided by your "ExpandoSuit"...

... and watch out for unusual enemies like trains!

Who's the big fella on the left? Don't hang about to find out!

SLEEPWALKER

Ocean are the brains behind *Sleepwalker* and being of a charitable nature, they produced this title to raise money for Comic Relief. Not only did they raise a sizeable sum for this cause, they also created a fine platformer to boot. Now appearing on their Hit Squad budget label, you can buy this unusual, brainbashing title at a bargain price.

Novel gameplay has a great deal to do with the success of this platformer and, as Ralph the Dog, it becomes your duty to save your sleepwalking master from the pitfalls of the city. Super canine powers allow you to run, jump and even bridge gaps to save Lee, your master, from his sleepwalking quandary.

Other advantages on your side mean that you can be squashed, run over and even roasted to no ill-effect! Unfortunately, Lee does not have the same powers of survival and you must do everything you can to guide him back to safety.

The bonus level provides another dimension to the game and, if successfully completed, results in a surprise ending. The cartoon-style graphics, smooth scrolling, and easy to control gameplay make it easy to see why *Sleepwalker* has been included in this collection.

Attention has been paid to the detail of the graphics.

Guide your sleepwalking master back to safety...

Overall Rating: 81%

50

ZOOL

Produced originally for the Amiga by the guys at Gremlin, Zool became for the Amiga what Sonic was for Sega and Mario for Nintendo. The powers of genius decided to port the title over to the Atari, and what a brilliant decision that turned out to be...

The great thing about platformers is how instantly playable they are and Zool demonstrates this exceptionally well. As an alien ninja from the Nth dimension, you must travel around six worlds defeating all manner of strange enemies. Each world is cleverly based around a theme ranging from Fairground Worlds to Music Worlds and the enemies relate to their environment from Popcorn Bags to Walking Drums!

Unusual power-ups, like Two-Zool, and the many different ninja moves the character can carry out – like his impressive mid-air spin – make for some highly entertaining gameplay. Top this off with fast, frenetic action, huge levels packed with secret bonus rooms and millions of different enemies to defeat and you have a very playable and addictive title. This is not to even mention gobsmacking graphics that push the ST to its limits, sensationally smooth scrolling or the superb sound effects.

Zool excels in all departments and leaves us with an awesome classic.

Overall Rating: 90%

As an alien ninja, Zool can carry out many stunning moves.



All the levels are cleverly based around a theme.



MAGIC BOY



Colourful graphics make for a visually stunning game.

This bright and colourful platformer, brought to us courtesy of Empire, revolves around the subject of magic. You control a sprite called Hewlett, an apprentice wizard, who has accidentally released an assortment of the Wizard's magical animals and must find and return them.

The action takes place over a massive 64 levels, plus bonus ones, and four different worlds. Each provides different backdrops relating to that world, and each one is graphically gorgeous, hosting a splendid array of resplendent colours and well-created sprites.

Worlds range from Sand Land to Future Zone and gameplay involves capturing the escaped animals by using the helpful spells you have at your disposal – contained in your Magic Wand, of course!

Littered throughout the levels are features designed to make life tricky, ranging from dissolving platforms to ice shelves. Some can even help Hewlett such as the conveyor belts. Finding out which part of the landscape will help or hinder you leads to some great entertainment as you race through the levels capturing the escaped animals.

The unusual sound effects and well-designed levels for novel gameplay puts *Magic Boy* up there with the rest of the essential platformers.

Overall Rating: 78%



Strange looking enemies add a humorous side...

BUYER'S GUIDE

YOUR CHOICE...

To make life a little easier, here's an at-a-glance buyers' guide for the essential platformers...

Game	Company	Contact	Price	Machine	Memory	Graphics	Sound	VFM	Playability	Overall
Zool	Gremlin	0742 753423	£25.99	ST/STe	1Mb	9	9	9	9	90%
Robocod	Kixx XL	021-625 3311	£9.99	ST/STe	1Mb	9	7	8	9	83%
Magic Boy	Empire	081-343 7337	£25.99	ST/STe/MegaSTe	1Mb	9	8	7	7	78%
Sleepwalker	Hit Squad	061-832 6633	£9.99	ST/STe	1Mb	8	8	8	8	81%

THE BEST OF THE REST

Many platformers have been released over the years and it would be hard to give a full round-up of them all, but here is a brief guide to some of the others available...

THE DIZZY SERIES • CODEMASTER

Although more puzzler games than platformers, the Dizzy titles have earned a great deal of popularity amongst games players. The main character is an egg – of all things – and the titles available include: *Spellbound Dizzy*, *Fantasy World Dizzy* and *Crystal Kingdom Dizzy*.

THE LEMMINGS GAMES • PSYGNOSIS

Strictly speaking, these games are also puzzlers but as all are of high quality and involve absorbing gameplay, it seems pertinent to include them. The inevitable object is to guide millions of Lemmings away from their deaths!

THE ADDAMS FAMILY • HIT SQUAD

A great film licence tie-in, the game contains well-animated characters from the big screen. Play the part of Gomez and rescue your family with the help of Thing. Brilliant, atmospheric graphics and music make for an excellent title.

WIZKID • HIT SQUAD

The work of Sensible Software, this platformer gives some weird but entertaining action. Progress is made by clearing the screens of baddies by bouncing bricks on them. It sounds fairly easy but the screens become chaotic and the puzzle mode makes the game thoroughly engrossing.



Chaotic fun abounds in Wizkid!

Dave "it's in the blood y'know" Jones goes bargain hunting for the best of the budgets...

VFM

The sprite is a little too small with the result that it sometimes gets lost...



MUZZY

HOLBURN SOFTWARE • £5.99 • 0224 211866

IN BRIEF: At first glance, *Muzzy* doesn't seem to promise a great deal. Arriving in a small plastic case with a photocopied inlay, it hardly impresses through its presentation. The asking price of a mere £6 also raises suspicions as to the game's quality, but appearances can be deceptive and after playing for a few minutes, it becomes clear that you're in for something a bit special.

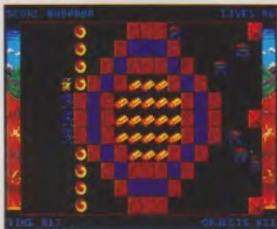
This is a real bargain of a puzzler. Packed with a huge number of levels, the object of the game is to collect items and avoid the baddies. Although this may sound relatively easy, you're going to need skill and split-second timing to get through the game.

The sprite of the game, *Muzzy*, has a lust for shiny objects and you must guide him around earth, water, air and fire levels to find the objects and complete his quest. *Muzzy* is helped by his great stamina in terms of walking and flying, and he can also carry an infinite number of these shiny objects. However, he can't fight or run so you must steer him away from the baddies or use bombs to obliterate those in his way. All the objects

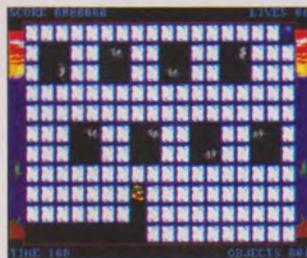
must be collected before you can proceed onto the next level, each object being connected to the element the level is based around – so, for example, in Air level you'll collect balloons.

ST REVIEW COMMENT: "*Muzzy* is a highly entertaining puzzler with a helpful password system that becomes essential as the game becomes more chaotic.

Graphically the game isn't astounding but the screens look attractive. The sprite could certainly have been a lot bigger, though, as it tends to get lost in all the action. But for £6 you get a thoroughly enjoyable and different puzzler with many levels to keep you entertained for a long time."



Avoid nasties and collect objects – but this is not as easy as it sounds!



The numerous different levels provide a good variety of puzzles.

Larry's antics haven't improved since his previous two adventures...



LEISURE SUIT LARRY 3

KIXX XL • £14.99 • 021-625 3311

IN BRIEF: This is the third adventure in the life of the not so lovable Larry Laffer. This time round he finds himself on the Island of Nontoonye where he loses his job and his girl and tries to find happiness in the Island Jungle inhabited by Amazon Cannibal Women.

Leisure Suit Larry 3 is different in that it is Sierra's first role-switching game; you can alternate between playing Passionate Patti, Larry's hedonistic female counterpart, and the usual role of Larry.

Where *Larry 3* doesn't differ, however, is that the humour emulates the first two titles, with corny, sex-related scenarios, and the kind of situations that you'd only ever expect to happen in a *Leisure Suit Larry* escapade! But if you fancy a pleasant change to the usual serious adventures then *Larry 3* provides some excellent, light-hearted fun. You instruct Larry in the

usual manner by typing in commands such as simple verbs and nouns. "Talk" allows you to interact with other characters – a vital part of the game which often leads to humorous encounters. Moving Larry is made simple via the mouse; simply click on him followed by the spot you wish to direct him to. Look around your area carefully to pick up clues and pay close attention to what appear to be minor details...

ST REVIEW COMMENT: "Puzzles are logical but taxing and the situations that crop up will ensure that you get a good giggle at least. Graphics are very pleasing to the eye, with the backdrops creating the atmosphere of the locations well. The cartoon style characters also add great appeal.

As a game that doesn't take itself too seriously, it is well worth a look at if you want something a little different – and, of course, for those who are already fans of the series."



Graphically, the game has been improved somewhat.

CADAVER

KIXX XL • £14.99 • 021-625 3311

IN BRIEF: Brought to us by the Bitmap Brothers, this classic RPG is now available at a budget price courtesy of Kixx XL.

In the isometric 3-D arcade adventure, you take on the role of Karadoc the dwarf. You need to explore the many dungeons and corridors of the Castle Wulf in your mission to kill the necromancer Dianos. Interacting with hundreds of objects, people and monsters you need to solve the puzzles along the way.

Your character of Karadoc is able to walk, jump, climb stairs and fight monsters. He is also helped by being able to use the spells and potions he finds. Three types of spell are available, ranging from those that fire shots to Room spells, which can freeze a room or entire level, and Object spells, which let you unlock chests and the like.

The screen is neatly divided into three parts: the main area, showing the current location and what is happening; the icon panel, which shows the objects you are carrying or using, and the status panel, revealing your current health, time and location. The entire screen has been well thought out and it is easy to concentrate on the game rather than continually having to worry about fiddly icons, a trap some games of this nature fall into thus detracting from the gameplay.

This version has the added bonus of a disk with extra levels. "The Payoff" provides another four levels of entertainment and takes over the story from where the quest ends and Dianos is dead. To get your reward you must travel to the seedy backwater of Wulfheim and to the Charon Arms – the only sign of life coming from the mysterious village...

ST REVIEW COMMENT: "Cadaver evokes the eerie, mythical atmosphere brilliantly through well-created graphics. Gameplay is varied and the many clues and multitude of enemies will prove to be a challenge for even the most hardened of adventurers."

A highly recommended RPG – Cadaver is an excellent example of its kind."



Detailed graphics create an excellent atmosphere...



During the course of your quest, you'll need to solve a whole host of puzzles.



With the decent screen layout, you can see all of the action quite clearly.

The different views allow you to plan shots accurately.



from eight different angles. Choose from a close-up view behind the ball to a wide angle of the entire table.

To take a shot, you have to decide on how much power to hit the ball with, whether to use spin – and when to chalk the cue! Talk about attention to detail...

ST REVIEW COMMENT: "Jimmy White's Whirlwind Snooker adheres to the rules of the real game, resulting in a highly realistic simulation. Even the balls obey the laws of physics to the letter!"

A very playable and easy to control game that should provide a great deal of entertainment whether you want a fast two-player match or a serious competition. Ideal for novice and expert alike."



JIMMY WHITE'S WHIRLWIND SNOOKER

HIT SQUAD • £14.99 • 061-832 6633

IN BRIEF: Archer Maclean is the brains behind this brilliant Snooker simulation – you may have heard his name in association with his other excellent game, *Archer Maclean's Pool*. Both have earned reputations for being the definitive games of their kind.

A highly realistic, extremely playable simulation, *Jimmy White's Snooker* provides all the excitement and fun of the real thing from the comfort and convenience of your home computer.

The game provides plenty of options, promising many hours of entertainment. Choose from the standard one or two-player games to a full tournament against four computer-controlled opponents. Trick shots can be set up and this option will also enable you to solve problems from any other game mode – a great way to improve your skills.

Control of the game is through the mouse and keyboard, with the clear icon panel allowing you to set up your shots, and the table can be viewed



A clear icon panel adds to the user-friendly nature of the game.



Take too long over shots and the balls pull silly faces!

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ST Review has obtained some of the classic Atari ST/STE games – and you can select any four for just £14.99 inclusive of postage and packing. Just fill in the coupon and send it to us, but hurry – we only have limited stocks...

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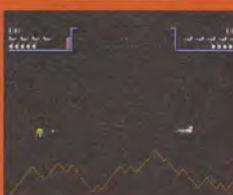
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9LIVES



Bob Cat arrives to see his beloved Claudette being whisked away by the mad Scientist's men. Can Bob save old cutie paws? Four levels and hundreds of rooms...

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Sola III requires a continuous supply of six super-heavy atomic nuclei and relations with neighbouring star systems are poor. Can you locate the six elements and return them safely to Sola III?

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BADLANDS PETE



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CHRONICLES OF OMEGA



In the far off land of Omega, the jealous forces of evil abduct children one by one. Aided by the good witch, you have to battle your way to the demon castle for the final encounter...

TEMPEST

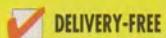


Hostile forces from another galaxy threaten to pour through a series of tunnel-like tubes. You have to destroy all 16 tubes as wave after wave of aggressor attacks you.

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PD SCENE

Fancy some games on the cheap? Nial Grimes dons his Inspector Clouseau costume and goes looking for clues...

WING LORD

LAPD • DISK NO: G.355 • £1.50 • MEMORY: 0.5MB • SHAREWARE • STE-ENHANCED • FALCON-COMPATIBLE

IN BRIEF: With *Tempest 2000* comfortably outselling every other game on the Jaguar, it looks as though we are heading for an arcade revival of epic proportions. *Wing Lord* is along for the ride and attempts to recreate *Joust* on your machine, taking advantage of any DMA sound facilities it finds along the way.

In case you've never played the original, the idea is to dash around the screen on your winged steed, jousting enemy riders from their unicorns (oh yeah, it's believable alright!). The controls are unusual in that the wings need to be flapped manually with the fire button and the amount of movement is adjustable for that true arcadey feel. The game proceeds as expected until level nineteen at which point the shareware demo turns up its toes and dies.

ST REVIEW COMMENT: "Wing Lord loses out when stacked head to head against Atari's own version of *Joust*, but much of this can be put down to the slightly modified control system. It's a classy version of an all-time classic game, but no way was the original this hard to play!"



Joust is reborn into the nineties through *Wing Lord* - fans of the original will love it, others, er, won't!



The controls can be tuned to suit your style and DMA sound is used for effects on the STE.

DARKLYTE II

LAPD • DISK NO: L.79 • £3.00 • MEMORY: 1MB • LICENCEWARE

IN BRIEF: Having knocked a few corners off the *Darklyte* empire in the original expedition, this sequel sends your rag-tag bunch of senile droids into battle against an even more deadly foe. Improved graphics, greater depth of gameplay and some tasty sound samples have been added to bring *Darklyte* into '94 and let me tell you - it's one slick gaming experience.

Darklyte II is basically a role-player. Each of your four droids has certain strengths and weaknesses and the idea is to outwit the enemy rather than just go in with lasers blazing the whole time. It's a nice mixture between strategy and attacking action with a few nice extras thrown in for good measure.

Power-ups can be bought when you've pinched enough gold and a good selection of attack patterns are on offer. Certain strategies yield more experience points than others - a jab or a swipe will net far more rewards in terms of experience than a few swift rounds from the laser! The



The game is split into four zones - the first two are a good source of power-ups.



Play takes place on an isometrical board perched precariously in space - the movement icons sit down below.

control of the droids is all down to an icon panel that adorns the left hand side of the screen. Separate buttons are included to scan enemies, pass gold between characters and, of course, to attack. The system uses quite a lot of right button clicks and you really don't get anywhere fast unless you're willing to give in and perch the manual on your lap during play. Fortunately the game is not timed, so you're not under pressure to move or react within a millisecond of an enemy advancing.

Overall there are twenty-two levels spread over four sectors. You can start on any sector, but it's always best to run through the easier levels in order to pick up a few experience points and some nifty power-ups. Graphically, *Darklyte* once again steals the show - it is just gorgeous to look at and although the style is the same as the original, most of the graphics are completely new. The sound effects are good, but it's clear that quality has been sacrificed for quantity in this department - there is plenty of speech, but some needs to be heard several times in order to understand what's going on.

ST REVIEW COMMENT: "Darklyte II, in common with its predecessor, looks totally stunning and now has gameplay to match. It certainly won't appeal to trigger-happy arcade fanatics, but if you are looking for some depth and appreciate a challenge, it's kinda fun."



Darklyte II is graphically outstanding, although the crackly sound samples leave a little to be desired.

On completion of the game, you are rewarded with access codes for gold and power-ups.



PacMan in sunglasses
- need I say more?

SNACMAN

LAPD • DISK NO: G.361 • £1.50 • MEMORY: 0.5MB • SHAREWARE • STE-ENHANCED • FALCON-COMPATIBLE (WITH BACKWARD)

IN BRIEF: Many attempts have been made to recreate the atmosphere of the original *PacMan* on the ST, but none have succeeded in quite the same way as *Snacman*. While it's a purely traditional affair in terms of gameplay, no way can you say it falls behind the competition in terms of gameplay. Quite the opposite in fact - *Snacman* is so slick and like the original you just can't stop yourself from playing. The attention to detail is remarkable too, with even the ghosts' eyes moving to face the direction in which they are travelling.

Crystal-clear sampled sound pumps along in the background on the STE while waves of colour flash through the pills themselves. It's a joy to look at and the screen updates stick at a silky-smooth fifty frames per second throughout. One of the best.

ST REVIEW COMMENT: "It doesn't matter how many truly awful *PacMan* clones appear on the market, my heart still misses a beat when a good one comes along. This is the closest you will come to the speed of the original *PacMan* and the difficulty level is as perfect as Cindy Crawford's waistline!"



Arcade-quality screen updates and a fantastic stereo soundtrack on the STE liven up the action no end.

TERMODROID

MERLIN PD • DISK NO: MPD.1900 • £1.25 • MEMORY: 0.5MB • SHAREWARE

IN BRIEF: With one or two notable exceptions, the world of public domain shoot-'em-ups is rather a dull place to visit. Most are written using high level languages such as SEUCK or STOS and at the end of the day, just don't possess enough "get up and go" to make it bigtime.

Termodroid is written in 100% assembly language and reflects that wholly through its speed. The game is played on a left-to-right scrolling starfield and even with a mountain of aliens on screen, the action doesn't show any



All the classic ingredients are here - power-ups, fast action and ridiculous amounts of fire power.

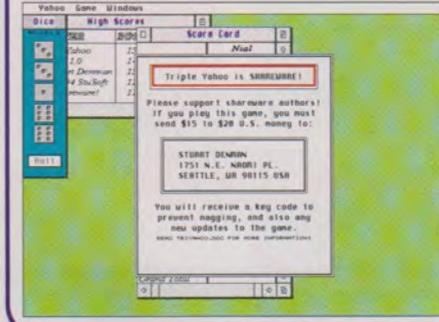
TRIPLE YAHOO

GOODMAN INTERNATIONAL • DISK NO: GD.2253 • £1.95 • MEMORY: 1MB • SHAREWARE • FALCON/STE-ENHANCED

IN BRIEF: It doesn't take much working out that *Triple Yahoo* is an out and out rip-off of Yahtzee. The game-screen consists of three windows - one for the dice (four of), a second for the score card and a third for the all-time best players. The aim of the game is to rack up points by adding the scores of the dice together in a variety of ways. I suppose it's an improvement over the original in that the computer takes care of all the sums, but you definitely lose the hands-on appeal of the dice (or should that be die?).

It's also only fair to warn you that the program claims to "lash back" if any modifications are made to its code. Who knows whether the threats are true, but it's a pretty low down way to protect your software if you ask me.

ST REVIEW COMMENT: "Triple Yahoo supports MultiTOS, DMA sound, 3-D buttons, SpeedoGDOS and runs in every screen resolution under the sun. But at the end of the day, it's still a rather dull game involving dice. Is it just me or is this type of game about as exciting as Monopoly without the board?"



Gameplay is broken up by an occasional nagging box, but if you want to get rid of it you're just going to have to register aren't you?

signs of slowing down. I'm sure you know the score by now when it comes to gameplay - just whack the fire button as hard and fast as possible and hope for the best.

It's all formula stuff and the only fault that really does dog affairs is the size of the droid itself. Dodging laser fire is relatively easy with a petite Xenon 2 style craft, but with a great lumbering dustbin of a vehicle it's a lot more difficult...

ST REVIEW COMMENT: "As shareware shoot-'em-ups go, *Termodroid* is very slick indeed. It certainly wipes the ground with the SEUCK brigade, but don't expect the challenge, graphics or originality of *Cybernetix*."



Termodroid is graphically unexciting, but it has speed aplenty, which is more than you can say for most shareware shoot-'em-ups!



Objects can simply be lifted from the play area and dropped into your players' hands.

WALLS OF ILLUSION - THE ENGLISH REMIX

GOODMAN INTERNATIONAL • DISK NO: GD.2256
• £1.95 • MEMORY: 1MB • SHAREWARE

IN BRIEF: Those of you with memories longer than the average goldfish will probably remember us covering this top notch *Dungeon Master* clone some time ago. You may also recall that the first version was a German-only affair and that's the problem that has been fixed by this latest release.

Apart from that monumentally important aspect, the game remains exactly the same. The screen updates are still lightning fast, the atmosphere wonderful and the sound effects just as haunting as the original



Dungeon Master. In addition to that, the control system allows you to interact with the game screen itself and objects can be picked up and given to any character with a simple drag-and-drop motion. Quite simply one of the finest shareware games available to date.

ST REVIEW COMMENT: "Walls Of Illusion is possibly the best role-player since *Dungeon Master*. The only problem with this English release is that the translation wasn't carried out by the authors and therefore the registered version is still likely to be in German."



English prompts turn an extremely attractive game into an essential purchase.

MOBSTERS' CITY

MERLIN PD • DISK NO: SS.001 • £3.00
• MEMORY: 1MB • LICENCEWARE

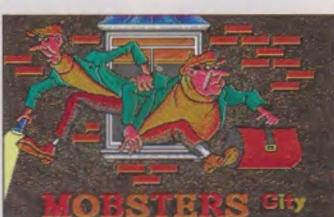
IN BRIEF: There's a lot of talk about interactive movies in the games industry at the moment, and while nobody's actually come up with the jackpot yet, graphically-oriented CD-ROM games are doing big business. *Mobsters' City* is a bit like one of these visually oriented adventures crammed down onto a floppy disk. It's based in a crime-ridden city and you play the part of Detective Sargent Silly. Twelve gangsters hold sway over the nine districts and each holds a piece of the map that will lead to the capture of the big boss.

All movement through the game is handled by clicking on various parts of the screen – the taxi sign will call a cab, while prodding another character with the mouse will raise a multiple-choice dialogue box. To be honest, very little interaction goes on between the characters, but it's a good excuse for the author to give his rather surreal sense of humour a bit of exercise ("gangsters wanted for buying an Amiga" – I love it!).

Once you've gathered the description of some baddies you need to equip yourself with a gun and pay a visit to the local pub. A gangster can usually be found lurking here and if his description fits a profile on your list, it's outside for a little bit of target practice. A game of Pontoon can also be played in order to raise some money, but beware – the dealer is definitely stacking the cards! Mind you, at least the taxis from district to district are free, so you don't have much to worry about on the financial side.

Mobsters' City is a really enjoyable game, even if it is a bit simple to play. Put a printed label on the disk and you could honestly believe it was a budget commercial title.

ST REVIEW COMMENT: "There is so much in *Mobsters' City*, it makes you wonder how they have managed to squeeze it onto one double-sided floppy. The graphics are polished in a cartoonish type of way and the only minor problem is the constant disk accessing."



Cartoon-style graphics line Mobsters' City from beginning to end.

Interaction with other characters is rare and even when a dialogue box does pop up, it's usually more amusing than useful.



*Money Left £ = 80
Present Bet £ = 5
Card Total 11
Twist Stick Raise Exit*

Cash is earned by playing Pontoon, but the dealer has a nasty habit of winning.



After a quick fracas in the pub it's out back to sort out your differences once and for all!

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A question that many of you have asked is: "What are the memory upgrade options for my computer?" Any ST can have five different memory configurations fitted, namely: 0.5, 1, 2, 2.5 and 4Mb. STes, or other STs with an STe-style SIMM upgrade, have four memory slots, each of which can accept 0.25Mb and 1Mb SIMMs. The 0.5, 1, 2 and 4Mb options use either two or four of the same capacity SIMMs; the 2.5Mb option is the odd one out. This uses two each of the two different capacity SIMMs along with a special Auto folder program, which is supplied with the upgrade.



The only exception to this rule is when you have a pre-STe machine with a particular Memory Management Unit (MMU) chip. It is not possible to get the 2.5Mb option with a 100109 MMU, and this is irrespective of whether the chip is socketed or surface-mounted.

Can you get more than 4Mb? If you own either an STe or Mega ST, then the answer is "yes" with Marpet's Xtra-RAM +8 board. You'll need either TOS 2.06 or MultiTOS installed and an existing memory allocation of 4Mb, but your Mega ST can be expanded to either 8Mb or 12Mb by using 1Mb SIMMs, while an STe can have either 6Mb or 12Mb depending on whether you fit 1Mb or 4Mb SIMMs.

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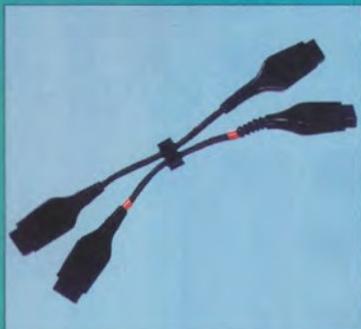
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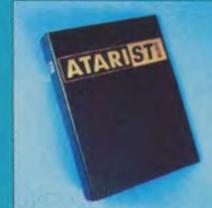
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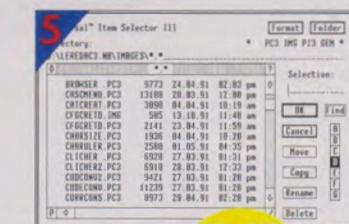
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PD ZONE

WHAT'S IT ALL ABOUT, PD?

The public domain is a huge and confusing place, although there are really three forms of freely distributable software. First, there's good ol' *Public Domain* which basically has no restrictions on distribution at all - you are free to copy, alter, mangle or feed any public domain program to your pet piranha and the author won't complain. The *Freeware* system runs along similar lines, but in this case the programmer retains the copyright and you are not allowed to alter programs without permission.

Possibly the fastest growing form of software distribution today is *Shareware* which relies on payment from you. Typically, you are given a time period to try out a package, after which you must "register" - pay a fee to continue using it. The Shareware system is all about honesty; if you don't pay the fee, the author won't send somebody round to rearrange your face, but you won't get any of the benefits of registering. Also, you won't get that warm cuddly feeling inside that comes as part and parcel of being honest. OK? Right, then let's look at...

CATEGORY OF THE MONTH: TROUTWARE

Example: *Diamond Format*

Now this must be one of the quirkiest forms of software distribution on earth. Troutware requires no monetary payment at all, but instead you are expected to pay your debt to software society with a fishing fly! Please note: it is the height of bad manners to send a troutware author the wrong type of fly!

JIGSAW 2 DEMO

GOODMAN INTERNATIONAL • DISK NO: GD.2026 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE



IN BRIEF: *Jigsaw 2* brings the world's favourite puzzle game to your ST's screen. It doesn't try to be clever and soup up the concept in any way, but instead opts for the straightforward approach.

All of the loose pieces are displayed on one screen while the actual work area is on another. Pieces can be moved between the two via the puzzle palette which basically amounts to a scrollable storage window. A simple point-and-drag approach is all that's needed to actually put the jigsaw together and after a few minutes moving between the various screens the whole process becomes second nature. Slightly annoying is the fact that all of the pieces are automatically placed the right way up, but I suppose it could get a little complex if they weren't. One complete puzzle is included with the demo version and a separate catalogue program displays all of the pictures included with the full product.

ST REVIEW COMMENT: "*Jigsaw* is a truly gorgeous piece of software - the presentation, the gameplay and the graphics are all just right. To be perfectly honest, an on-screen jigsaw could never be as much fun as the real thing, but at least you can't lose any of the pieces!"



A palette allows pieces to be moved backwards and forwards between the storage and work screens.



The interface is very bold and a separate tune accompanies each picture as it is loaded.

NEVER-ENDING COLOURING BOOK

MERLIN PD • DISK NO: MPD.1660 • £1.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

IN BRIEF: Colouring books are a wonderful invention, but put them in the hands of a child and they are just an excuse to destroy furniture, carpets and anything else capable of absorbing paint. The *Never-Ending Colouring Book*, however, removes the need for any mess by transferring the whole operation onto the screen. It includes a total of eleven well-drawn wireframe pictures that can be mouse filled from a selection of bright colours.

It's all remarkably easy to use and the interface has clearly been designed with children in mind. There is no need to worry about the file selector because it's just a case of choosing a picture number and then clicking the load button. A selection of demo-style tunes bop merrily along in the background.

ST REVIEW COMMENTING: "The *Never-Ending Colouring Book* is bright, bubbly and sounds great too. It probably won't take too long to complete, but youngsters will certainly have a lot of fun along the way - and mum and dad can rest safe in the knowledge that they won't be picking paint out of the carpet for the next six months!"



QUICKDRAW

GOODMAN INTERNATIONAL • DISK NO: GD.433 • £1.95 • MEMORY: 0.5MB • SHAREWARE

IN BRIEF: *Quickdraw* is yet another board game that is trying desperately hard to "go digital". Four people are needed to play (two on each team) and the idea is to describe a word to your partner by drawing a picture - it's a bit like computer charades. Several icons such as "sounds like" are included to help you along the way and there's an erase button in case everything goes horribly wrong (as it very often does!).

The computer acts as quiz master and provides all the necessary words for each round. The category is not hidden, so at least the person doing the guessing has some idea of what he or she is looking for. When a picture is correctly identified the team moves on a few squares - first past the post wins, it's as simple as that.

ST REVIEW COMMENT: "Board games never seem to come across too well on screen and *Quickdraw* is no exception. It's fun for a few games, but the kids will probably end up crawling back to Guess Who sooner rather than later."



Quickdraw is a competent adaptation of a rather dull parlour game.



HEARTBREAK

LAPD • DISK NO: L.66 • £3.00 •
MEMORY: 0.5MB • LICENCEWARE •
FALCON-COMPATIBLE



IN BRIEF: *Heartbreak* is an educational cross between *Tetris* and *Connect 4*. All traces of dull blocks have been replaced with colourful tiles that will appeal to youngsters and the gameplay is nice and straightforward.

The idea is to build the random blocks that appear on screen into complete horizontal or vertical lines. However not all of the tiles have positive effects. A divide tile halves the score you receive on a line while a boulder prevents lines being built altogether. There are also bonuses such as bags of cash, and multiply tiles can double or triple your score. In order to please all levels of player there are three high score tables – one for “plenty of points”, another for “lots of lines” and a third for more than fifty lines. Presentation is top notch with well-defined graphics and sampled sound that even works on the Falcon.

ST REVIEW COMMENT: “*Heartbreak* is a great game with simple controls and the stylish audio-visuals just add to the enjoyment. It might be just a bit too challenging for younger players, but for the young at heart it’s almost perfect.”



Numerous different tiles add variety to the gameplay and the sound effects are just as slick as the visuals.

AMAZING CONSTRUCTION SET

GOODMAN INTERNATIONAL • DISK NO: GD.188 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: All children seem to have a fascination with mazes and if you can't manage to get down to Hampton Court, this little program might just do as a second best. The *Amazing Construction Set* is specially designed to create the type of mazes you find in puzzle books. Just draw any filled shape on screen and it will attempt to turn it into a mass of corridors. What's more, all of the resulting puzzles are solvable, no matter how impossible they may seem at first. If you really do get stuck, the computer can be instructed to solve it for you.

It's quite amusing watching the ST dash from corridor to corridor trying to find its way out of a particularly tricky maze – so much more relaxing than actually solving it yourself! Printer support is for the Epson MX-80, and most 9-pins should be able to make some sense of that. The program works perfectly well on the Falcon, but the colour scheme is less than ideal.

ST REVIEW COMMENT: “The *Amazing Construction Set* is probably of limited interest, but it does do its job very well indeed. If your children are going through a maze phase, registering this program could well work out cheaper than a lorry full of puzzle books.”

The Amazing Construction Set provides a maze from any shape – and a solution if given half a chance!



TOP TEN EDUCATIONAL PROGRAMS

1 HEARTBREAK • LAPD • DISK NO: L.66 • £3.00 • MEMORY: 0.5MB • LICENCEWARE • FALCON-COMPATIBLE

If you are game for an educational game, *Heartbreak* is worth checking out. The emphasis is more on entertainment than anything else, but cute graphics line up alongside crisp sampled sound to form one very enjoyable experience, no matter what your age.

2 JIGSAW 2 DEMO • GOODMAN INTERNATIONAL • DISK NO: GD.2026 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

A jigsaw game that oozes quality from every available orifice. The style and complexity of pictures it presents makes it suitable for older children or adults and there are three difficulty levels. An equally stylish catalogue program shows exactly what you can expect from the registered version.

3 MINI MAGIC STORY BOOK • GOODMAN INTERNATIONAL • DISK NO: EDUC.033 • £1.95 • MEMORY: 1MB • SHAREWARE

Build your own animated fairy tale on screen with the *Mini Magic Story Book*. This piece of software really is pure class when it comes to looks. It might be just a bit too complicated for younger children to use on their own, but with a little help from mum or dad they will be up and storytelling in no time.

4 HEDGEHOG • GOODMAN INTERNATIONAL • DISK NO: BY NAME • £1.95 • MEMORY: 0.5MB • SHAREWARE

The Frogger concept has been reworked and simplified for this trip into the world of Hedgie the hedgehog, Loony Lorry Drivers and Burnin' Beetles. A nice little game, and watch out for the ambulance that dashes to the rescue when Hedgie has been flattened...

5 AMAZING CONSTRUCTION SET • GOODMAN INTERNATIONAL • DISK NO: GD.188 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Fulfil your childhood dreams of an unending supply of paper mazes with the *Amazing Construction Set*. The program itself is really very nicely done, although the unending supply of shareware messages at the beginning of each session are annoying to say the least.

6 NEVER-ENDING COLOURING BOOK • MERLIN PD • DISK NO: MPD.1660 • £1.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

Enter a world where paint spills can be mopped up instantly by pressing the <Undo> key and the cat never lives in fear of a bright blue stripe along his back! The bold interface and bubbly music make the *Never-Ending Colouring Book* one of the more enjoyable educational experiences.

7 SOUND SEARCH • GOODMAN INTERNATIONAL • DISK NO: GD.1954 • £1.95 • MEMORY: 0.5MB • SHAREWARE • HI-RES ONLY

High resolution educational titles are quite thin on the ground, but David Becker continues to support the cause valiantly. This isn't quite up to his usual standard, but the sound quality is good and if you register this title a whole barrel full of his other games will come flooding your way free of charge.

8 BENJAMIN'S ABCS • FLOPPYSHOP • DISK NO: EDU.4201C • £2.00 • MEMORY: 0.5MB • SHAREWARE

A simple, but sonically pleasing educational game for teaching the alphabet. The graphics are a little on the crude side and it's more sampled sound than anything else, but worth a peek at this price.

9 SUPER SIMON • GOODMAN INTERNATIONAL • DISK NO: GD.433 • £1.95 • MEMORY: 0.5MB • SHAREWARE

Relive memories of the '70s with this superb Simon emulator for your ST. The sound effects are just as drab as they ever were and a few different difficulty levels have been added for good measure. Unfortunately the “oh, it missed a button press” excuse is no longer valid with this version!

10 GILBERT'S CHALLENGE • GOODMAN INTERNATIONAL • DISK NO: GD.2043 • £1.95 • MEMORY: 0.5MB • PUBLIC DOMAIN

Now this one is only included for curiosity value. It's a board game of some description, but no documentation is included and goodness knows how you're supposed to play it. Can anybody put me out of my misery? Perhaps the challenge is to find out how to play the damn thing in the first place...

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PD ZONE

HOW FAST

**FLOPPYSHOP • DISK NO: UTL.4370 • £2.00 •
MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE**

IN BRIEF: Size may not be all that important when it comes to hard disks, but speed most certainly is. *How Fast* can tell you the exact read and write speed of your drive by performing a number of disk-intensive tests.

The action all takes place from a tidy GEM dialogue box while a number of sliders define the size of the buffer used in each test and the number of repetitions. It doesn't bypass GEMDOS and works on every hard disk I have tried including the Falcon's internal IDE. This also means that caching is taken into account and it's ideal for tuning your disk cache to the right level.

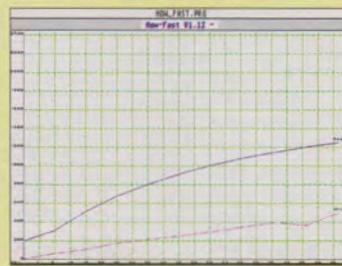
The results are displayed through a colour graph (screen resolution permitting) with one line for read and write speed. A "kilobytes per second" scale runs up the left-hand side of the screen and the results can be saved to disk for comparative purposes.

ST REVIEW COMMENT: "How Fast seems to provide more accurate real-world results than most hard disk speed testers. The graphed display and fully adjustable read/write parameters make it a very interesting program to play with."

★★★



If you can live with the German interface, How Fast is worth its weight in used 100 Deutschmark notes.



The results aren't always as enthusiastic as RateHead, but reflect the real-world more accurately.

NBCBS

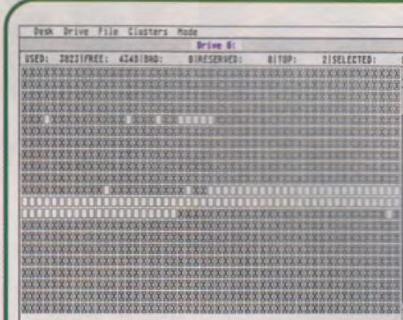
THE SHAREWARE COMPANY • DISK NO: BY NAME • £1.75 • MEMORY: 0.5MB • FALCON-COMPATIBLE

IN BRIEF: Having tested your hard disk to destruction with *How Fast*, the next step is to improve it with a cache utility such as *NBCBS*. The program is based around *CacheXXX* from Atari and works in the same simple way; just drop it in your AUTO folder and adjust the filename depending on the number of buffers you need.

Two types of cache are on offer. The first holds file allocation tables and root directories, while the second takes care of the actual data. It only takes a few Kb of allocated cache to improve the perceived speed of your drive and the program itself has a paltry 1.28 byte overhead; it doesn't handle write caching, but that's probably a good thing. The English documentation for the original is included together with a German addendum.

ST REVIEW COMMENT: "Every hard disk deserves some form of read cache and *NBCBS* is as good as any. There's little point in switching from your regular program just for the sake of it, but if you're currently using *AHD1* without any form of cache it's an essential purchase."

★★★



BlitzSchnell is good as far as it goes, but a little taster of the more powerful features would be useful.

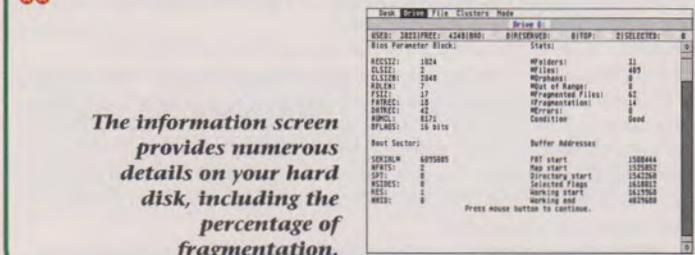
BLITZSCHNELL

**FLOPPYSHOP • DISK NO: UTL.3723 • £2.00 •
MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE**

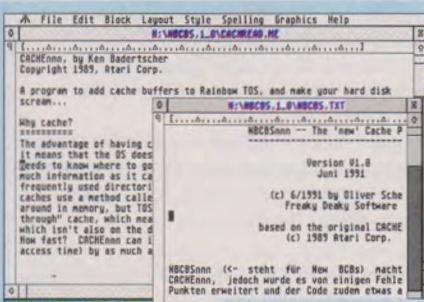
IN BRIEF: After a while, every hard disk begins to slow down as all of the files become intermingled in one big fragmented mess. The solution comes in two varieties: back up the drive completely and copy everything back again, or go for some disk optimisation software. *BlitzSchnell* takes route 2 and runs along the same lines as *Diamond Edge*. It will map the fragmentation on your drive, plot the path of a file through a partition and plenty more besides. The only trouble is that the unregistered version is incapable of doing anything remotely useful – directory optimisation, defragging and cluster consolidation are only available in the full version; sounds more like buy before you try to me! However, the bits that do work seem to be Falcon-compatible and the fact that it's written in assembly language means that speed is unlikely to be a problem.

ST REVIEW COMMENT: "BlitzSchnell looks like a very good program, but it's more of a commercial demo than anything else. If the author could just add one feature to show that the program actually worked it would be something! Still, at \$15 the registration is not excessive."

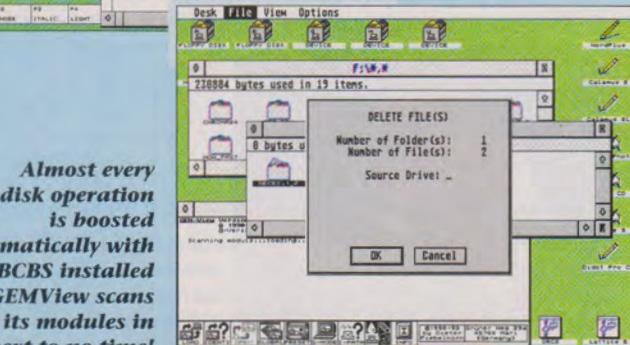
●●



The information screen provides numerous details on your hard disk, including the percentage of fragmentation.

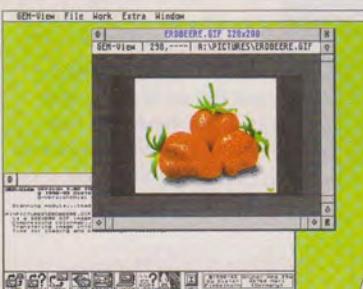


The original CacheXXX documentation is included with NBCBS and usage is exactly the same.



Almost every disk operation is boosted dramatically with NBCBS installed – GEMView scans for its modules in next to no time!

PD ZONE



You can take advantage of GEMView's display and conversion facilities from within HP Chrome.



HP CHROME 1.5

LOCAL BBS/PDL • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: There is nothing more annoying than splashing out £400 on a printer only to find that all of the drivers bundled in the box are for PCs running Windows. However, if the printer you bought was an HP DeskJet, the solution needn't be that expensive thanks to *HP Chrome*. As users of earlier versions will know, this clever little utility takes pictures stored on disk and turns them into glistening colour output on any DeskJet from the 500 to the 550c.

The same familiar dialogue box fronts the show up, but buried beneath the dozen or so buttons you will find a whole host of new features. First and foremost is the ability to set up the program in the way you like it and save the configuration. It can also be instructed to AutoPrint and under later versions of TOS you can just drag a file to the *HP Chrome* icon and have it dumped automatically. The output is not quite up to *ImageCopy 2* standards, but it still looks remarkably good, especially when you opt for Hewlett Packard's special shiny inkjet paper. In common with earlier versions, it even supports colour printing on mono Deskjets with four appropriately filled cartridges – a bit messy, but it does work.

Perhaps the most important enhancements though are in the file format department. Pictures can now be read in TIFF, GIF, X-IMG, RAW, Spectrum 512 and the original Degas and Neochrome of course. This nicely removes the limitation to screen size images and although the file format support isn't the best in the world – it won't deal with LZW-compressed TIFFs for example – it does offer links to *GEMView* if all else fails. Incidentally, this link solves the problem of viewing pictures in Falcon screen modes – a feat that *HP Chrome* is unable to perform under its own steam.

HP Chrome should be available from your local PD library, but if you'd like to buy the registered version (2.5) in one fell swoop, pop £5 in the post to Rufus Developments, 21 Rowlands Hill, Wimborne, Dorset, BH21 2QQ. Cheques should be made payable to "Rufus Developments".

ST REVIEW COMMENT: "HP Chrome is a very impressive piece of software and the only thing it really lacks is full support for the Falcon. The improved range of file formats means pictures need no longer be restricted in size and for a fiver – which includes a printed manual – you can't really go wrong."

Actions speak louder than words – assess HP Chrome's output for yourself!

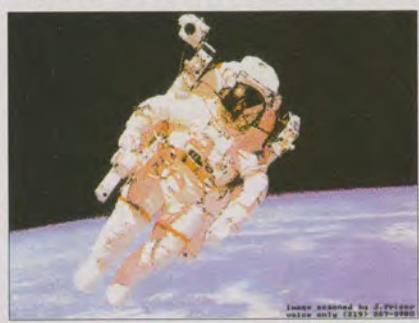


Image supplied by J. Price

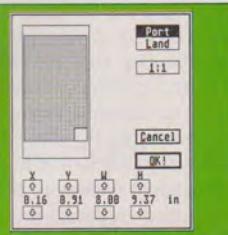
DIAMOND FORMAT 2.3

THE SHAREWARE COMPANY • DISK NO: BY NAME • £1.75 • MEMORY: 0.5MB • TROUTWARE

IN BRIEF: To say that the public domain has its fair share of disk formatters would be the understatement of the century. In fact, let's be frank – it takes all the self-control in the world to prevent yourself being physically sick when another specimen thrusts itself upon you, but wonders of wonders, *Diamond Format* actually manages to offer something new.

It's a spin off from the popular *Diamond Back* hard disk back-up utility and includes several disk formats that are not available elsewhere. Diamond's own "SuperFaST" format in particular claims to boost floppy access speeds by up to 25% and the program is fully capable of dealing with standard or high density floppies. The interface is typically American and works very well, although don't you just hate buttons that automatically highlight themselves as you move the mouse...

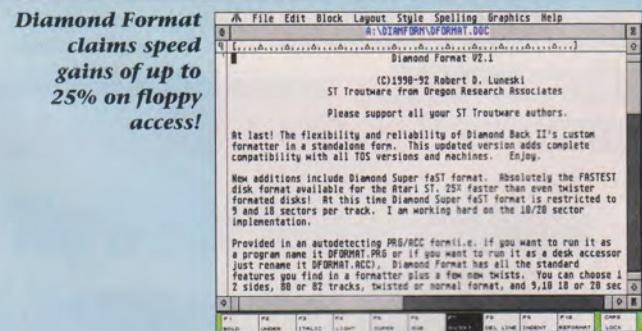
ST REVIEW COMMENT: "There are advantages and disadvantages to *Diamond Format*. On the one hand it can speed up floppy access and provide compatibility with *Apple File Exchange* on the Mac, but on the other its Super FaST disks are hard to copy and the physical formatting speed is quite poor."



Picture sizing is mouse controlled and the 1:1 button allows the aspect ratio to be locked.



Support for high density drives and compatibility with Apple File Exchange are just two of the benefits that Diamond Format has to offer.



Diamond Format claims speed gains of up to 25% on floppy access!



HICKORY

FLOPPYSHOP • DISK NO: UTL.4372 • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Click on the face and Hickory sprouts window controls for sizing and dragging.

IN BRIEF: Hickory is a desktop clock (*I should have guessed... Ed*) with a difference. Firstly it's analogue which means you actually get a proper clock face on the screen, and secondly it's willing to put up with absolutely any screen resolution you throw at it. Add a neat little alarm facility and you have one very handy desk accessory.

Stir Hickory into action and you are presented with a nicely formed clock. By clicking on the face you can add the standard window controls and the

MNILU COMPILER

GOODMAN INTERNATIONAL • DISK NO: GD.2196

• £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Mniliu is quite basic, but is worth a look if you can't afford the commercial GFA compiler.



IN BRIEF: I am sure there must be dozens of people out there who have written programs in GFA BASIC 2, but have never released them into the public domain because they lack the necessary compiler. *Mniliu* is a public domain alternative to GFA's own compiler that will take version 2 source code and turn it into a fully functioning .TOS or .PRG program.

A GEM dialogue box is used to control the compiler and what it lacks in looks, it certainly makes up for in terms of power. While resulting executable files aren't very compact – or so the documentation says – the compiler does deal with almost all GFA BASIC 2 instructions. The on-disk manual is very informative and is easy enough to follow even if you've never used a compiler before.

ST REVIEW COMMENT: "Mniliu might be worth investigating, but until it supports GFA BASIC 3, it's only of passing interest. However, by taking the shareware route you can set up a fully functional programming system for less than £10 which can't be bad."

The interface boasts a few basic file handling facilities, but unfortunately that's about the best thing you can say about it.

With an alarm facility included, Hickory is certainly one step ahead of your average desktop clock.



whole thing can be sized or dragged around the screen as you see fit. A double-click produces a dialogue box, from which the alarm can be set and activated. It's all swimmingly efficient and the only niggle is that it disappears every time a program is run unless you happen to be using MultiTOS...

ST REVIEW COMMENT: "Desktop clocks don't come much better than Hickory, but it's hard to see any real advantages over the Control Panel unless you consider an alarm vitally important. Looks good and works well, but perhaps just a little bit dull."

TOP TEN UTILITIES

1 HP CHROME 2.5 • LOCAL BBS/PDL • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Possibly the best way to extract full colour output from your DeskJet. In addition to a small but perfectly formed interface, HP Chrome offers links to GEMView, plus a whole new range of file formats. What's more, set the Autoprint option and under TOS 2.06 you have a divine drag-and-drop picture printer.

2 LZH-SHELL 3 • THE SHAREWARE COMPANY • £2.00 • MEMORY: 0.5MB • FAIRWARE • FALCON-COMPATIBLE

The world's slickest archiver shell has finally come of age. Boasting a slightly simplified interface, but all of the power of the original, it's one utility that any comms freak cannot afford to miss. The author has added a prominent fairware notice to this version, but \$15 is a small price to pay for software of this calibre.

3 HCOPY 1.6 • FLOPPYSHOP • DISK NO: UTL.4372 • £2.00 • SHAREWARE • HI-RES RECOMMENDED • FALCON-COMPATIBLE

A FastCopy clone, with only one drawback – it has yet to learn English! However, on the menu you will find support for high density disks, a rather nice GEM shell and a fair old turn of speed. Nicely done, but *FastCopy III* is still a better deal if you don't need the high density support.

4 DIAMOND FORMAT 2.3 • THE SHAREWARE COMPANY • DISK NO: BY NAME • £1.75 • MEMORY: 0.5MB • TROUTWARE

A formatter from the makers of *Diamond Back* that claims to speed up disk access dramatically. It's a little bit slower than *FastCopy* when it comes to the physical formatting process, but as long as the finished product lives up to the maker's claims, who cares?

5 BOOZGEM • FLOPPYSHOP • DISK NO: UTL.3723 • £2.00 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Yet another archiver shell, although this one deals with .ZOO files. Admittedly it is less attractive than the "ST Zip" brigade, but it does have one very important aspect in its favour – it's completely free! The command line version is included, in case you feel the urge for some good, old-fashioned hostility!

6 HICKORY • FLOPPYSHOP • DISK NO: UTL.4372 • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Desktop clocks don't come much more polished than *Hickory*. It runs as an accessory alongside all of your favourite software and uses the slightly novel analogue face. You can't help feeling that a digital clock is a little bit more practical, but *Hickory* is a nice little toy all the same.

7 DESKJET 1200 CALAMUS DRIVER • FLOPPYSHOP • DISK NO: UTL.4369 • £2.00 • MEMORY: 2MB • SHAREWARE • FALCON-COMPATIBLE

Calamus users have been crying out for a means to exploit the full resolution of the DeskJet 1200 for some time and here is the answer. Sadly I haven't been able to test it, but the source code is included, and can be easily adapted with the Driver Editor if there are any teething problems.

8 LOCK UP • FLOPPYSHOP • DISK NO: UTL.4272 • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

A neat little encryption program with an equally sleek interface. It's designed to work with text files more than anything else and the accompanying documentation details the method used. Even so, a password must be used with each file, so it's not easily crackable by any means.

9 MNILU COMPILER • GOODMAN INTERNATIONAL • DISK NO: GD.2196 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Mniliu is a passable impression of a GFA BASIC 2 compiler. The interface deserves an entry in the "all time worst dialogue box layout" competition, but it does its job well enough. OK guys – when's the version 3 compiler coming out?

10 THE ULTIMATE WRITE PROTECTOR • GOODMAN INTERNATIONAL • DISK NO: GD.2196 • £1.95 • MEMORY: 0.5MB • FREEWARE

The Ultimate Write Protector prevents all but the most devious programs from accessing your hard or floppy drives. The immunity can be disabled with a rather complex keystroke, but fear not – the whole thing is documented to death in the accompanying text file.

PD ZONE

CAR JPEGS

**FLOPPYSHOP • DISK NO: F.4488 • £2.50 •
MEMORY: 4MB • FREEWARE • FALCON ONLY**

IN BRIEF:

Wallpaper fans unite! This high-density disk is packed to the brim with top quality JPEGs of cars in a rally setting. Fourteen models are covered and each photo has been taken right in the heat of the action.

Most of the photos are set against the same background, so you have a Calibra charging over the hill with blurry people in background, a Mazda charging over the hill with the same blurry people in the background, and a Reliant Robin being pushed over the hill by a man in an anorak, with blurry people in background (OK, so I made the last one up). However one or two pics do break from the formula and it has to be said that despite the repetitive theme, the quality of photography is just superb. The JPEGs themselves are to a high standard too – there's only a little noticeable mottling and the high resolution is useful if you are intending to desktop publish with them.

ST REVIEW COMMENT: "The quality of these pictures is outstanding and they should be a part of every self-respecting car-freak's collection. However, the non-standard sizes could present a problem if you intend to use them as wallpaper on the desktop."



Some of the pictures are a bit samey – several share exactly the same background.

MULTIBLOW

**FLOPPYSHOP • DISK NO: F.4451 •
£2.50 • MEMORY: 1MB (4MB RECOMMENDED) • SHAREWARE • FALCON ONLY**

IN BRIEF: Owners of VGA monitors are well catered for in the monitor-expander stakes, with Falcon Screen, Blow-up and ScreenBlaster all vying for prime position. *MultiBlow* is a utility that claims to offer similar benefits for those with RGB monitors and it works remarkably well.

Not only is it effective, it's also extremely easy to set up. All you need to do is copy one program to your AUTO folder, reboot and then run *MultiBlow* when you reach the desktop. A wide range of resolutions can be used, stretching right up to 1280 horizontal pixels! Most of the settings worked on the test monitor (an antique Thomson) although a good deal of fiddling was needed to fit the picture on the screen in some cases. Obviously, not all software is compatible with the extra space, but most well-behaved GEM



NV-RAM slides into a CPX slot and allows any of the Falcon or TT's internal settings to be adjusted easily.

NV-RAM CPX

**FLOPPYSHOP • DISK NO: F.4406 • £2.50 •
MEMORY: 1MB • PUBLIC DOMAIN • FALCON/
TT ONLY**

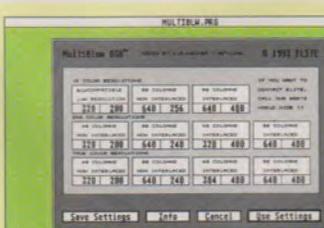
IN BRIEF: Inside every falcon and TT there is a small area of battery-backed memory that stores some vital statistics about the machine. This is known as non-volatile RAM and, surprise, surprise, NV-RAM allows you to adjust the settings it contains.

The number of colours used at boot-up, screen resolution and date format can all be edited freely, and overscan can be enabled or disabled if you are using a TV or RGB monitor. You can opt for English, German, French, Italian or Spanish language prompts on the desktop and an equally impressive range of foreign keyboard layouts are available should you ever need them. The rather intriguing UNIX option also crops up once again, but as the prompts are in German we are still none the wiser as to what it actually does.

ST REVIEW COMMENT: "It's hard to see a real reason why you'd need to configure non-volatile RAM from a CPX, but that's not to say that the program is inefficient in any way. It does its job very well, but some English prompts would be nice."

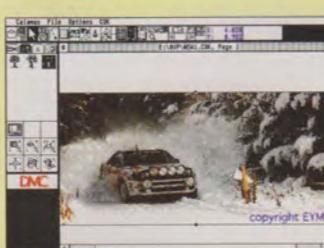


Changing the language used on the desktop is just one of NV-RAM's many features – no practical use, but it's fun!



Squeeze a few extra pixels from your protesting RGB monitor with MultiBlow.

applications are willing to play ball. GEMView 3, in particular, is much improved in 768 by 560 pixel true-colour.



ST REVIEW COMMENT: "MultiBlow improves the desktop space available on RGB monitors no end and is a complete joy to use."

Over-overscanned screen modes provide extra space when working with programs like GEMView 3 or Calamus SL.

CUT OUT 'N' SEND COUPONS

ATARI ST

L.A.P.D,
P.O. Box 2,
Heanor,
Derbyshire,
DE75 7YP

NAME.....

ADDRESS.....

- Snacman £1.50
- Darklyte II £3.00
- Wing Lord £1.50
- Heartbreak £3.00

ATARI ST

Floppyshop ST,
P.O. Box 273,
Aberdeen,
AB9 8SJ

NAME.....

ADDRESS.....

- Hickory £2.00
- Multiblow £2.50
- NV-RAM CPX £2.50
- Car JPEGs £2.50
- Blitzschnell £2.00
- How Fast £2.00

ATARI ST

Goodman International,
16 Conrad Close,
Meir Hay Estate,
Longton,
Stoke-on-Trent,
Staffs,
ST3 1SW

NAME.....

ADDRESS.....

- Walls Of Illusion -
The English Remix £1.95
- Triple Yahoo £1.95
- Mnilu Compiler £1.95
- Amazing Construction Set £1.95
- Quickdraw £1.95
- Jigsaw 2 Demo £1.95

ATARI ST

Merlin PD,
11 Grange Close,
Minchinchampton,
Stroud,
Glos.,
GL6 9DE

NAME.....

ADDRESS.....

- Mobsters' City £3.00
- Termodroid £1.25
- Never-Ending
Colouring Book £1.25

ATARI ST

The Shareware
Company,
51 Thornleigh Road,
Bishopston,
Bristol,
BS7 8PQ

NAME.....

ADDRESS.....

- Diamond Format 2.3 £1.75
- NBCBS £1.75

*Have any of
the twenty odd
programs we've
reviewed in this
issue caught your
eye? Then cut out
the coupon and
send it on its
way...*

Andrew Wright guides you along the path to expert status with some more desktop techniques...

We've already looked at file copying in previous tutorials but there are several refinements you need to know about in order to really get to grips with your machine.

If you have a floppy-based system, you will undoubtedly spend a lot of time copying files from one disk to another for all kinds of reasons. For example, you may have unarchived a PD utility using your new-found skills with archiving programs or you may want to tidy up your word processor files and folders. Copying one file at a time is a tedious business, so it might be a good idea to learn some new approaches.

As an example, we'll take the Opus spreadsheet as supplied by Goodmans International on disks GD312 and GD313. *Opus* is a shareware program that uses GDOS print routines and is supplied on two disks: a boot disk and a data disk.

Now the boot disk is ready to run but let's assume you want to copy the main files onto your own boot disk so that you can use your normal desk accessories and run AUTO folder programs such as NVDI. Again, some of this is old ground for regulars of this series, but practice makes perfect.

First put the source disk (in this case the *Opus* disk) in the floppy disk drive and open a window by double-clicking on the A drive icon (or highlighting the icon and selecting Open from the File menu, whichever method you prefer). Now double-click on the B icon and when prompted, insert your boot disk (figure 1). Remember that in single drive systems, logical drives A and B can share the same physical disk drive – if they didn't, you wouldn't be able to copy files! From the root



directory – those files that aren't in folders – select the files you want to copy across.

In this example you don't need the mono resource file, the DESKTOP.INF file (as you want to keep your own customised one on the boot disk) or the backup ASSIGN.SYS file. The way to select non-consecutive files is to hold down the <Shift> key and then select each file individually (figure 2). When the last one has been selected, release the <Shift> key. To copy them, you can click on any of the selected files, hold down the mouse button, drag them across and drop them over the root directory of the boot disk.

INTO FOLDERS

That's taken care of the main program files – now for the fonts. The first thing to do is create a folder on disk B, again called FONTS. You could call it something else but you'd then have to edit the ASSIGN.SYS file to reflect the change of name – not a good idea!

Now open the FONTS folder on

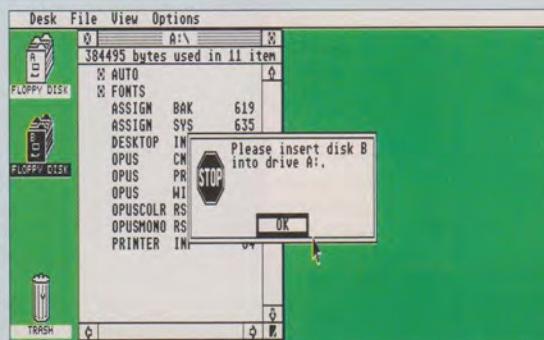


Figure 1:
Although you only have one disk drive, two disks can easily be handled.

BEAT THE SYSTEM

PART SEVEN: COPYING FILES

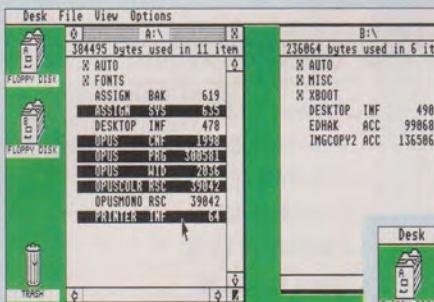


Figure 2:
Files can be selected individually by holding down the <Shift> key.

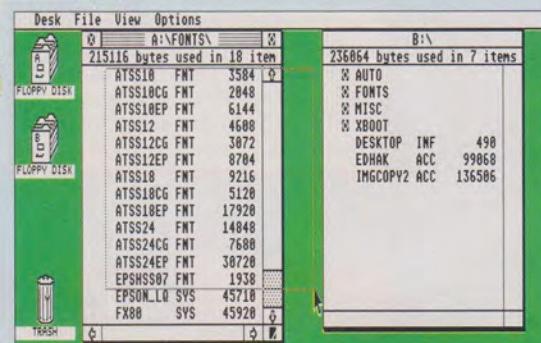


Figure 3:
A number of files can be picked by using the "rubber-banding" method.

disk A. If you wanted to copy all the files in this folder across to disk B, how would you do it? It would be a bit tedious holding down the <Shift> key and clicking on all the files one after the other, wouldn't it? The answer is to draw a rubber-band around all the files you can see in the window (figure 3). Place the mouse pointer just above the topmost file you want to select (the top left is the best place to start but you can place it anywhere above), press the left mouse button and hold it down. You'll see the pointer start to quiver and a small box will appear.

Next, drag the mouse pointer until the box with the dotted line – the "rubber-band" – touches all the files you want to select. Note that you

don't have to completely encircle them. As long as the rubber band covers part of a file name or attribute such as size, it will be selected and inverted in colour.

You can mix the above two methods by rubber-banding one group of files and then holding down the <Shift> key to add more. If you want to select all the files with a particular extension, go to the View menu and choose Sort By Type. All files with the same extension will then be next to each other.

RESTRICTIONS

There are limitations to desktop file copying. For example, what if you want to copy every file in a folder

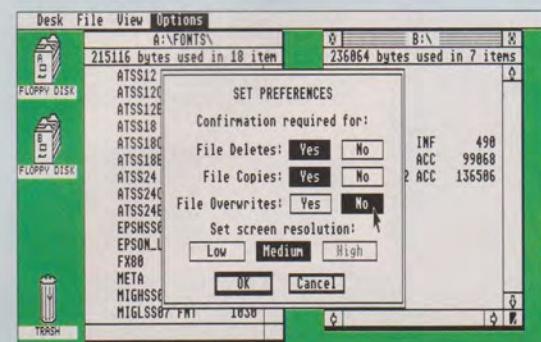


Figure 4:
Setting File Overwrites... in the Options menu to "No" prevents the confirmation alert box from appearing.

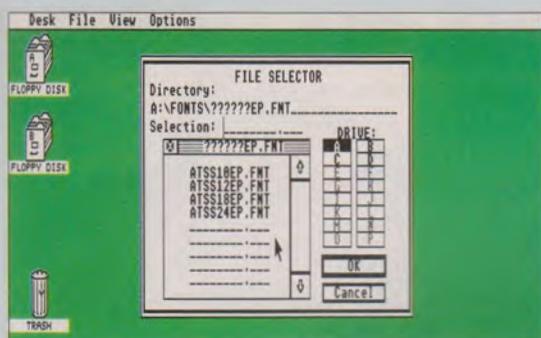


Figure 5:
This is what
a file mask
looks like...

and there are more than will fit in a window? There isn't an easy answer. Later versions of TOS (2.0x onwards) and many replacement desktops have a menu command specifically for this situation – Select All – but pre-TOS 2.0x users will have to carry out this operation by rubberbanding visible files, copying them, using the scroll bars to show some different files and then repeating the procedure.

If you find yourself doing this, it's often helpful to go to the Options menu, select Set Preferences... and click on No next to File Overwrites (figure 4). This means that if you accidentally select the same file twice (something that is very easy to do), the copying process won't halt to confirm you want the already copied version replaced by the original.

Note also that it isn't possible to select a file at the top of a window, hold down <Shift> and scroll to a file at the bottom of the list that wasn't previously visible. Again, this is a feature that is only possible in TOS 2.0x or replacement desktops. File this bit of info away as a good reason for getting a new desktop when we look at the subject in more detail!

A GOOD SELECTION

The other part of the ST's operating system that handles files is the file selector. This is a dialogue box built into TOS that can be summoned by any program that needs to access a disk. It's also something that frequently annoys and confuses people!

The program that summons the file selector can pass it certain parameters known as the "file mask" (figure 5). This is the part or parts of the name that have to be matched up with files on the disk before they

can be displayed. Masks can be built up using the "?" sign, representing any single character or the "*" representing any group of characters. For example, a file mask of ??????EP.FNT in a GDOS fonts folder will display files like ATSS12EP.FNT, ATSS18EP.FNT and so on, but not files like ATSS12.FNT.

The normal mask is "*.*" – a mask that all files match – but some programs pass their own extension to the file selector. For instance, Word Writer sends the mask *.DOC while Easy Draw looks for *.GEM files.

Sometimes you'll find yourself wanting to alter the mask. Word processing is a good example – many beginners save their documents with extensions that mean a lot to them but nothing to the program. In Word Writer 2, for example, if you save a letter as DEARJOHN.LET, when you want to reopen it, the *.DOC file mask that the program uses will mean that any files with a .LET extender won't be displayed (figure 6).

To alter the file selector mask, click on the top line with the mouse or press the <up> arrow. The cursor will move to the top line. Backspace as far as the rightmost backslash (figure 7) and add your own mask, pressing <Return> or clicking on the file window bar to implement it (figure 8). For problem programs, *.* is the best bet, especially if you've forgotten the name of the file you're looking for!

Note that you can also backspace even further to change the path and drive letter too. This isn't really necessary in TOS 1.04, but TOS 1.00 and 1.02 doesn't provide drive buttons and, believe it or not, this is the only way to point the file selector at another drive!

Masks are very powerful, especially

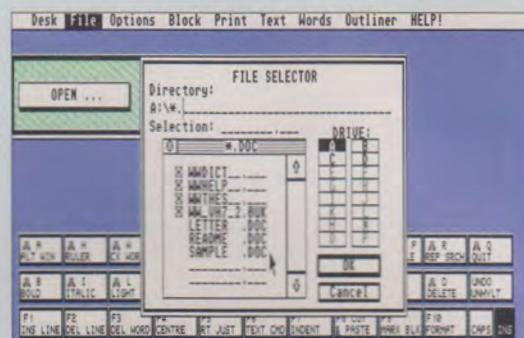


Figure 7:
Clicking on
the top line
of the file
selector and
backspacing
to the right-
most back-
slash...

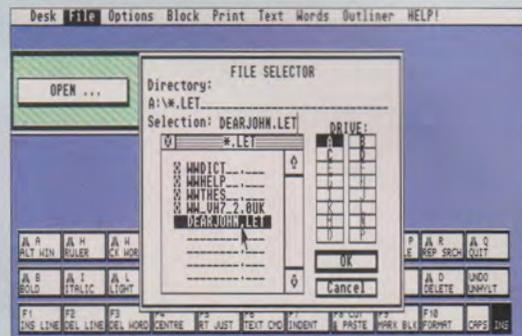


Figure 8:
... allows you
to change the
file mask.

when you have folders stuffed full of oddly-named files (the letter to your sister in Africa saved as PRANGCHIN.DOC might have you wondering in a couple of month's time!). For example, the mask *.AC?

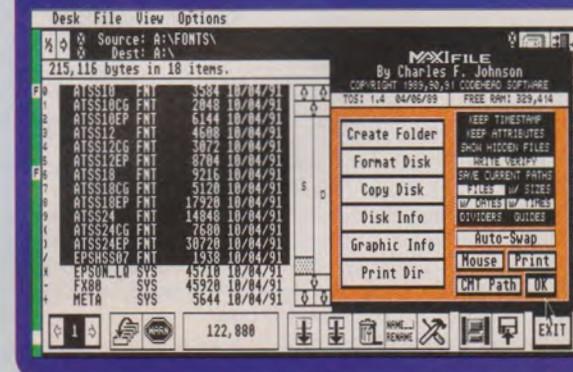
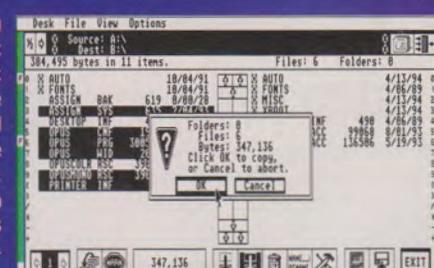
will display all accessories with .ACC extensions and also disabled ones like .ACX or .ACZ, while the mask *.NF will show configuration or information files like DESKTOP.INF or EXTENDOS.CNF.

MAXIFILE

If all this file copying gets you down, don't despair – you're not alone. There are some alternatives that will help. The best are *Kobold* and *Maxifile III*, both from System Solutions (081-693 3355). *Kobold* was previewed in the last issue but *Maxifile III*

Maxifile – a very comprehensive file manager.

It provides an easy way of managing files and disks and runs either as a desk accessory or as a program. Each operation is keyboard driven although the mouse can be used too and even individual files can be selected using the keypad. The program is highly configurable and includes every imaginable file-based operation from altering attributes to printing out directories, formatting disks and displaying free disk space. It costs £19.95.



*It doubles
as a disk
formatter
and copier
too.*

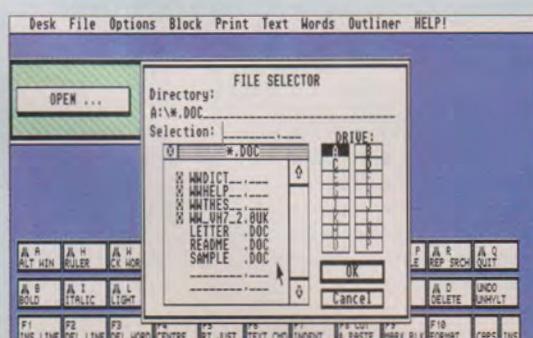
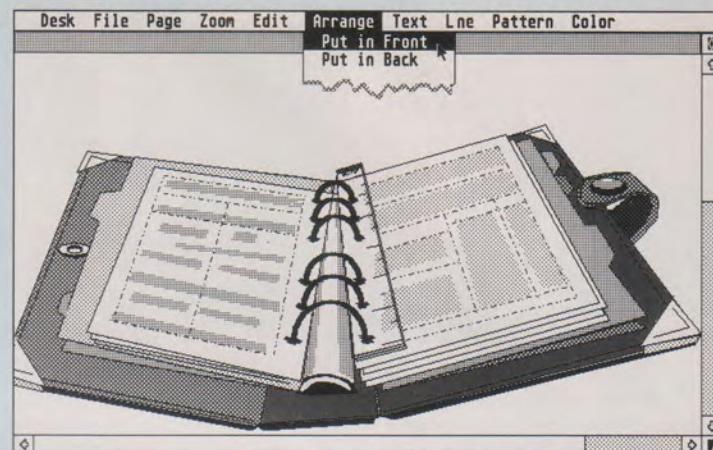


Figure 6:
Using a
custom file
mask can
often prevent
you from
seeing your
files in the
file selector.

Keith Berry revisits one of the best drawing packages ever to grace the ST - Easy Draw 2...

When ST owners had the opportunity last year of obtaining both *Easy Draw 2* and *Easy Tools 2* for the price of two issues of *ST Review*, the result was a rapid sell-out of both issues.

Developed by Migraph, *Easy Draw* quickly established itself as a leading generator of GEM vector graphics. Initially tricky to master, but with practice and perseverance it's often the first choice of anyone with a quick and accurate monochrome drawing to execute. The addition of *Easy Tools* provides a formidable range of implements with which to draw complex geometric, accurately spaced or "to-scale" images. Both



This picture depends heavily on the use of the *Arrange* menu's *Put In Front/Put In Back* functions. As a GEM vector image, the pages of this binder can be peeled away individually.

FINE ART

programs run happily on all standard ST computers in either monochrome or medium resolution; a low resolution version was sadly never completed. GDOS must be present or else *Easy Draw* refuses to run.



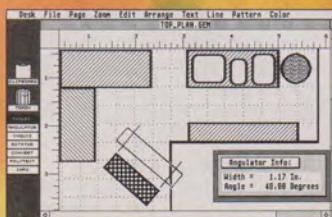
provide ideas and inspiration for those who may have neglected these cover disk "gems". If you are among those who feel that they lack sufficient artistic ability to tackle pictures as such, *Easy Draw* will still enable you to create diagrams and charts consisting of geometric shapes. These are virtually ready-made from the *Easy Draw* toolbox, and *Easy Tools'* Inquiz function can make you a scale grid to assist with the placement of such shapes on a



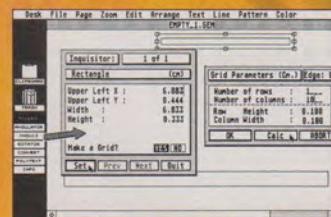
STEP BY STEP GUIDE

FITTED KITCHEN

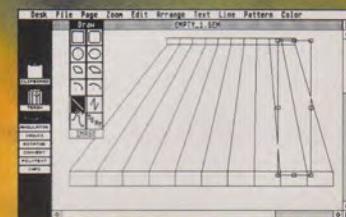
Drawing 3-D diagrams in perspective defeats most of us, but *Easy Draw* can certainly help...



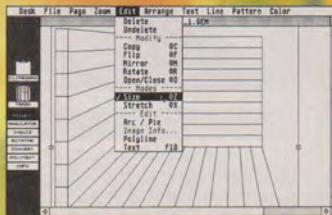
1 With the aid of Rulers, Inquiz's Grid function and Angulator, scale plans could help you to reorganise your kitchen or plan a new flat, but 3-D plans are possible too.



2 Scroll halfway down a new screen and draw two rectangles for the near and distant floor boundaries. Use Inquiz to make a Grid of each of the same number of columns, 10 in this example.



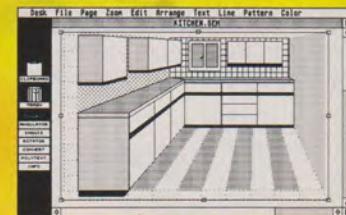
3 Draw lines to join each column of the upper rectangle to the corresponding column of the lower one. The resulting grid represents your "floorboards" but don't Group it yet because...



5 Similarly Copy and Rotate the lower rectangle and draw joining lines to form the left wall. Now Group everything (<Alt><A>, <Alt><+>), select Size and shrink the template into full view.



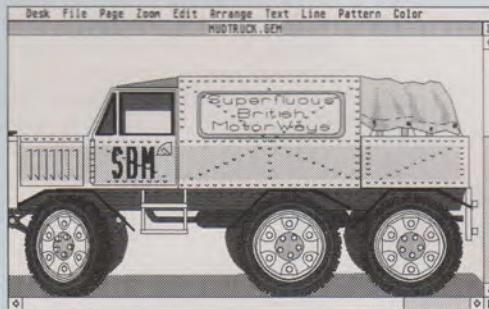
6 Save the template to disk for future use. Select a dotted line - test them all - from the Line menu to make the guidelines visible but less intrusive because we need to draw over them.



7 Using only filled rectangles and polylines, cupboards and a striped carpet have been added. Now select the template and press <Delete> followed by <Undo> if anything important vanishes!



This watch was drawn mainly with the aid of Easy Tools' Rotator and rotated Polytext. The Arrange menu's Centre and Middle functions were also employed to ensure that the sets of circles were grouped concentrically.



Excessive use of Easy Tools results in a complex picture and slow screen redraws. It's often quicker to build up the different parts in Window 2 and slide them into place via the Clipboard.

plan as shown in the first of our step-by-step pictures.

After some practice with flat, top-view plans, you may wish to embark on a perspective view as illustrated in the remaining steps. The final picture consists only of rectangles and simple Polyline (the "Z" icon in the toolbox) with a variety of patterns applied. Remember that this vector drawing system allows you to select a suitable pattern before, during or after you have drawn the figure, and the completed object can be readily re-sized or moved – even a Polyline's contours can be changed from the Edit menu.

If two adjoining shapes cause the

boundary line between them to appear too thick, select one of them and click on "None" from the Lines menu. Note that the template on which both types of plans are drawn can be deleted at a keystroke on completion of the plan – an advantage over a bit-image drawing utility.

LET'S FACE IT

Another practical use for even the "non-artistic" user is the creation of a unique replacement face for an old, or cheap battery-powered clock, the diameter of which must not exceed the maximum width with which your printer can cope. Draw all of the required circles, largest first, select All (<Alt><A>), use "Centre" and "Middle" from the Arrange menu to ensure their concentricity, and Group them all.

To provide rotated numbers, if you want them, you cannot employ those from a GDOS font so it's a straight choice between using Polytext as with the watch illustrated, and creating your own. Drawing Roman numerals is not as daunting as it may first appear since you need only one each of I, V and X – the Copy function duplicates them as required.

Whichever option you choose, place your first number in top centre position and use the Rotator with the cross-hair at dead centre to rotate it by 12 degrees. Repeat with the second number at 24 degrees and so on, finishing with the final number. Group your full set of numbers and make it concentric with the rest of the face as before. Add any other

detail or text required and finally add a small circle to act as a template to cut out the spindle hole, remembering to make it concentric with the rest.

BE A GROUPIE

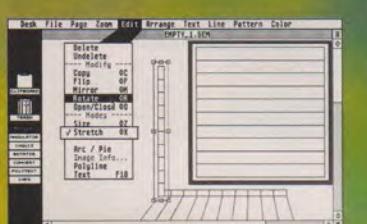
Making such clock faces is fun and, thanks to Easy Tools, is very much quicker than you may expect. As with all Easy Draw creations, the main problem is likely to be one object hiding another. This is rectified in part by "Put in front/back" from the Arrange menu, and sometimes by toggling "Transparent" from the Patterns menu.

The real solution lies in good planning, judicious grouping and building up your drawing as a series of sub-assemblies. To practice this important aspect try re-creating the picture of the personal organiser binder, starting as always with the largest background parts, gradually

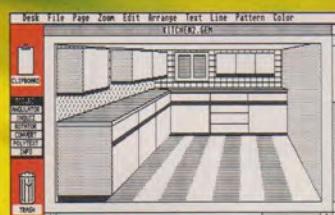
adding the progressively smaller details. Once you have the hang of Easy Tools and begin applying its full capabilities, you may well find that your pictures rapidly become so complex that you have a long wait between each edit or addition for the inevitable screen redraw. It will save time overall if you open up Window 2, build up your sub-assemblies there and later group and slide them via the Clipboard into your main picture.

The resolution-independent .GEM vector graphic produced by Easy Draw is ideal for inclusion in a DTP page and they are handled fairly well by most DTP packages, including PageStream v2.1.

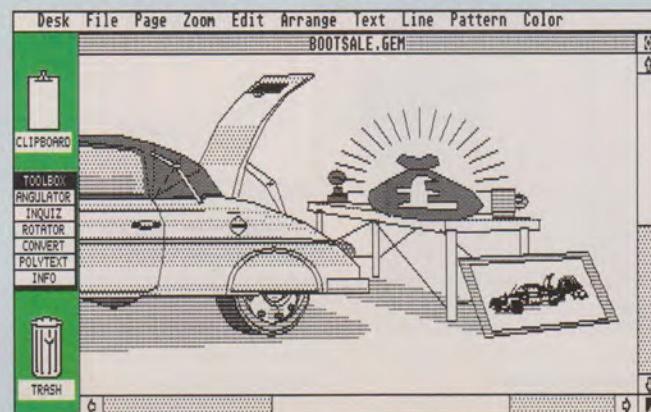
Upgrading to v2.2, however, puts .GEM file imports into a nose dive, making a hedgehog's supper of fill patterns and turning rounded corner rectangles inside out. Don't miss next month's issue for a possible solution...



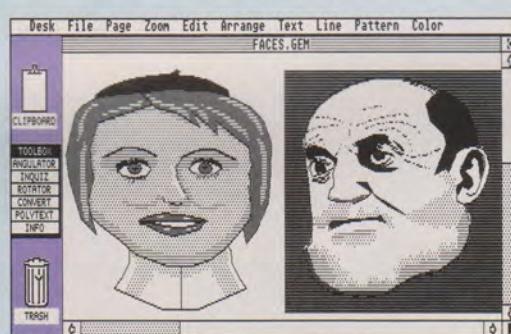
4 ... the next step is to Copy (<Alt><C>), Rotate (<Alt><R>) and Stretch (as in inset) the upper rectangle so that it becomes the far wall of the kitchen, with its equidistant guidelines still intact.



8 The result, shown here in medium resolution, is a plan that would have been much more difficult to produce without the template's aid...



Never think of your Easy Draw pictures as finally completed. This picture from an earlier sports car tutorial has had a few details added to depict a car boot sale!



Although Easy Draw appears to lend itself to drawings of a technical nature, it is also capable of portraits. The one on the right is intended to depict the pioneer photographer, Ansel Adams.

In the second part of our MasterCAD series, Joe Connor completes his virtual living room and reveals some hot tips to speed you on your way...

Computer Aided Design has always suffered from an image problem. Word processing and DTP applications have captured people's imagination with the result that many Atari enthusiasts undertake all of their own printing, which is certainly cheaper than the local printer for simple jobs. The same rationale should extend to CAD; perhaps the recent surge of interest in "virtual reality" will help.

The Step-by-Step guide this month provides a down-to-earth project that lets you get to grips with the program. By using exactly the same techniques, it's possible to create virtual models of anything from micro-organisms, through designing your very own mountain bike all the way up to a spot of Terra-forming!

Of course, you'll encounter a few practical limits imposed by your machine but don't let that get in the way of a great idea!



The "Regular Polygon/Circle" dialogue box sets the default number of "faces" (sides) assigned to circles/arcs. All the regular Polygons are available at the touch of a button so don't construct them manually!

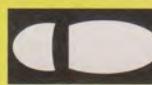
TOOLS OF THE TRADE

MasterCAD creates 3-D objects entirely from 2 dimensional "elevations" (front, plan, side and so on) which means that MasterCAD is as easy to learn and use as most 2-D-only CAD packages.

Objects are created entirely from Lines and Arcs - if you can use a pencil and a compass you're qualified! All the other tools simply make it quicker and easier to generate frequently-used shapes such as triangles and rectangles.

As a general rule, work with Polyline and Polygons wherever possible, changing to arcs as required. This ensures that your "vertices" (corners) will join up precisely. If you try to construct individual lines, it's all too easy to leave small gaps at the corners or create shapes that appear fine in the view they were constructed in but distort beyond recognition in others.

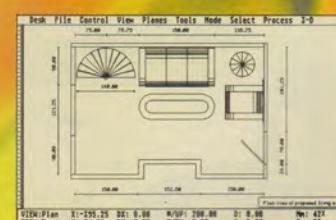
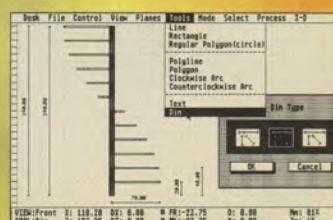
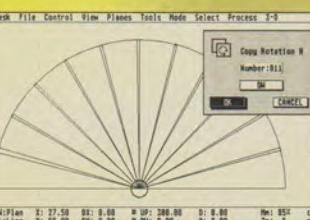
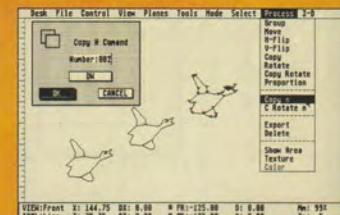
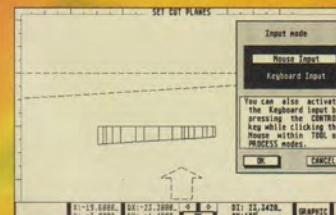
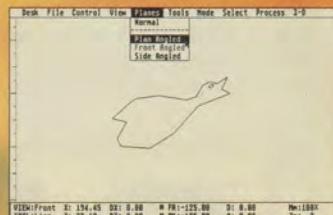
VIRTUAL



STEP BY STEP GUIDE

ROOM WITH A PEW...

Following on from last month's tutorial, let's add a spiral staircase... and some flying ducks!



8 When the Plan view reappears, select "OK" in the "Copy rotate n" dialogue box to generate the twelve-step spiral staircase, turning through 180 degrees as shown. Save this as an .OBJ file.

9 Experiment with the Dim (short for dimensions) options. Try dimensioning any distance, first from top to bottom then from bottom to top. Make a note of its affect on the text position.

10 "Append" the staircase and ducks to your own room design, add some walls and sprinkle some dimensions about. The "Text" option can be used to add a title - Zoom sets the text size.

11 Moving to 3-D mode, I tried various view points using the "Combined" option and finally settled on this rather dramatic view down the spiral staircase.

Whenever you design new objects, be on the lookout for symmetrical or repeating features that can more easily be constructed using the options available in the **Process** dropdown menu. This month's project makes good use of these options and shows how powerful they can be.

SOUND ADVICE

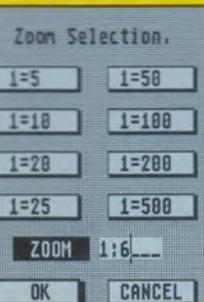
Before embarking on a complex model, try to break it down into a series of smaller objects. Build up libraries of frequently-used shapes and only keep the objects you're currently working on in memory. This keeps the redraw time down to an absolute minimum. If you do come up with a stunning creation or a useful library of objects, remember to share them with us!

In the concluding article next month, we'll take a look at MasterCAD's import/export options in more detail...

HINTS AND TIPS

- **Interruptible redraws:** Press the <Esc> key in 3-D mode to abort a *Filled planes* operation. In 2-D mode, click the right mouse button to abort screen redraws – this can save you hours!
- **Zoom level:** In addition to examining small areas of your drawing, the zoom level can also be used to set the size of dimensions and other text.
- **Selecting objects:** If you're having trouble selecting a particular object(s) try selecting *All* then using *Deselect objects*. Alternatively change to another view.
- **Default settings:** It's worth jotting down the settings in the *Control* menu because they're not saved with the drawing file...
- **Keyboard entry:** However good your eyesight is, you'll find times when the mouse refuses to stop on the exact value you're trying to input. Hold down the <Control> key and click the left mouse button to display the Keyboard entry bar. You can then enter the values directly.

As the "Zoom" option offers a user-definable setting, you can use it to set any text size.

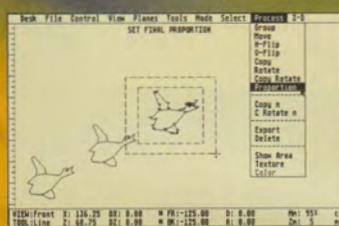


MISSSED THE JUNE ISSUE COVER DISK WITH MASTERCAD?

No problem – turn to page 90 for information on how to order back issues, and to page 16 for the *MasterCAD* coupon.



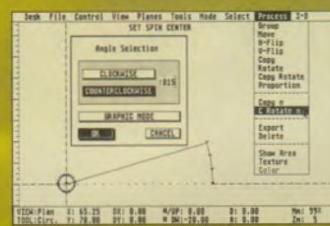
MODELLING



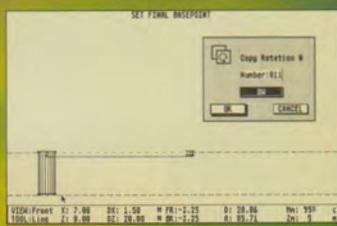
4 The Proportion tool makes it easy to resize your ducks. Select any duck and draw two rectangles roughly as shown to create a healthy looking bird, or experiment creating mutant duck!



5 Store your ducks using the "Save as" option then open 3-D Mode and admire your handywork. Any view can be exported in Degas or a .PRF print file formats using the "File" options.



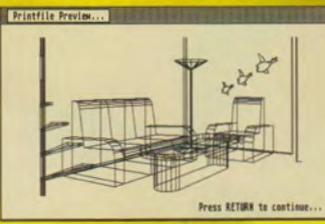
6 Moving along, let's add a spiral staircase. Load ONE-STEP.OBJ, select it and set the Angle and Spin Centre as shown. Click on the "DW" option in the "Copy rotate n" box...



7 ... MasterCAD changes to the Front view ready to set the DW (Down) distance. This sets the "rise" for each step. Click any two points, 20cm apart in height.



12 A separate utility program, OUTPUT.PRG, is used for output. It's easy to use – load in a MasterCAD format .PRF file, configure using the Setup buttons and begin printing!



13 To confirm you've chosen sensible settings it's worth using the "Printfile Preview" icon – you could save yourself some paper!



14 You can view the "virtual" living room from any point and extend it with your own library of objects – I think I need a bannister down these stairs...

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TOP NOTCH

Briefly touched upon last month, the GEM clipboard is probably one of the most under-used features of GEM. Over the last year or two, a growing number of applications have been updated to add clipboard support, and virtually all new programs feature clipboard options as standard.

WHAT IS THE CLIPBOARD?

The GEM clipboard is a simple system that allows programs to exchange data – anything from some simple text to a complex graphic. Whenever you select some text or a graphic in a document, there should be four options available as shown in the *Clipboard Commands* table.

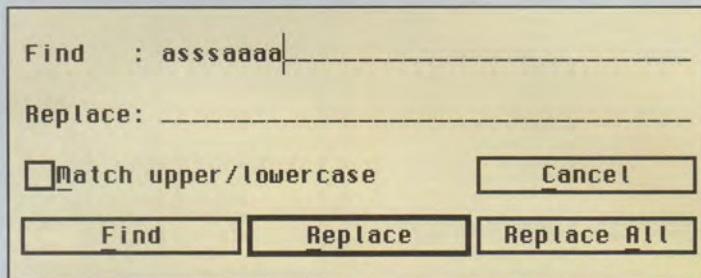
In practice this means that you can copy some text from your word processor, quit it, load a DTP program and paste the text into the current document. The same could work with an art program and a word processor.

MIDI sequences could also be passed from one application to another by using the clipboard. In reality, however, not all of this is possible and success depends greatly on the programs you use.

AtariWorks also supports the GEM clipboard. One possible use in conjunction with Let 'em Fly is to copy a word you need to search for, open the Find dialogue and paste the word in.



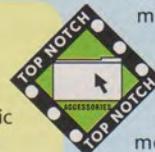
In the last part of this series, Ofir Gal considers how to make use of the GEM clipboard...



Installing Let 'em Fly provides both keyboard shortcuts and clipboard support for all dialogue boxes. You can cut, copy or paste using the standard keyboard commands.

CLIPBOARD COMMANDS

Command	Shortcut	Effect
Delete	<Delete>	Deletes the selected text or graphic
Cut	<Control>+<X>	Removes the selection and places it in the clipboard
Copy	<Control>+<C>	Copies the selection to the clipboard
Paste	<Control>+<V>	Inserts the contents of the clipboard at the cursor position



WHERE IS IT?

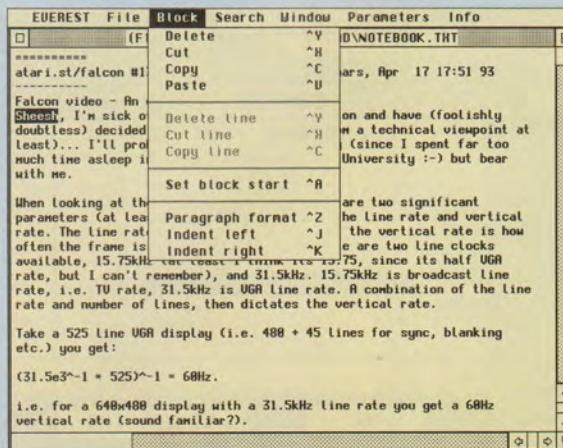
The clipboard is a collection of disk files. Rather than store clipboard data in memory, Atari opted for disk storage which is slower but has the advantage of surviving a crash. In other words, once data is copied to the clipboard it is completely safe, unless you copy more data to it which would then overwrite the previous contents.

The on-disk location of the clipboard is left up to you to decide. The recommended practice is to create a folder called *CLIPBRD* on the root directory of your boot drive (normally C). If you have a floppy disk-based system, you can set up a small reset-proof RAMdisk (see the *Floppy-based Clipboard* box for more information).

Atari provides a simple CPX module for use with XControl, included on our issue 26 cover disk. If you missed that issue, a similar, and more comprehensive utility, is on this month's cover disk. Use either of these utilities to set the clipboard path and save the settings. From this point onwards, all applications that are programmed correctly will be able to use the clipboard.



Calligrapher's idea of support for the clipboard is questionable but you may find it useful to know that Cut and Copy to the clipboard are implemented when quitting the program.



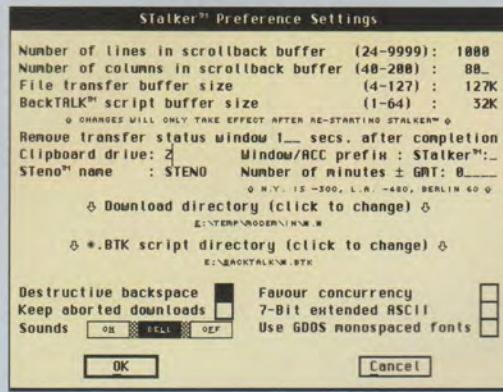
Everest fully supports the GEM clipboard – useful when using a comms package like Connect.

THE CLIPBOARD CPX

The clipboard CPX module on this month's cover disk allows you to set the clipboard path with the eXtensible Control Panel (XControl) from last month. Copy the file *CLIPBORD.CPX* into your CPX folder and install it by reloading the CPX modules or by resetting the system.

Once loaded, open the clipboard module with a double-click. The clipboard path is then set by clicking below the Current Clipboard Directory: text. This displays the file selector; point the module at your chosen clipboard folder (normally C:\CLIPBRD). Click on Save to make the change permanent and exit the Control Panel.

STalker doesn't support the GEM clipboard correctly. The best solution is to set the clipboard drive to Z which is as close as it gets...



FLOPPY-BASED CLIPBOARD

The GEM clipboard can be used on a floppy system, although it can be painfully slow as the floppy disk is accessed each time the clipboard is used. The best solution (apart from buying a hard disk!) is to install a small RAMdisk for clipboard operations.

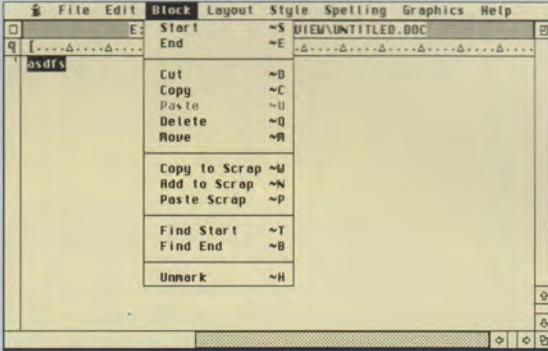
On the cover disk you will find a small program called M32RDE.PRG. This program installs a 32Kb reset-proof RAMdisk as drive M. Copy it to your AUTO folder and reboot. The program should be the very first to run in the AUTO folder for the fastest boot time. You should find that drive M then contains a folder called CLIPBRD and can now use the clipboard manager CPX to set the clipboard path to M:\CLIPBRD.

UP AND RUNNING

The clipboard is extremely useful once you get used to it. Unfortunately not all programs support it, and of those that do, many do not implement it correctly. While the following is not a complete guide, here are a few examples:

- *1st Word Plus*: supports the clipboard but insists on having the clipboard directory on the same drive, effectively ignoring user settings. The solution is to install the program on the root directory of your boot drive.
- *Calligrapher*: this powerful document processor only goes halfway. While running the program, the clipboard is ignored but the contents of the clipboard are available when quitting the program. This allows you to transfer text between *Calligrapher* and other programs.

Try copying some text into the clipboard by selecting it first, choosing Copy, quitting, loading another program that supports the clipboard and selecting Paste. The keyboard shortcuts for the clipboard functions in *Calligrapher* are non-standard and use <Alternate> instead of <Control>.



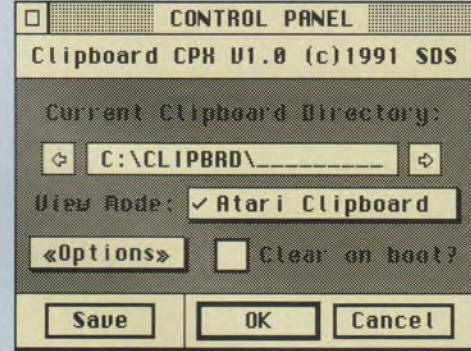
1st Word Plus supports the clipboard, but only if you install the program onto the root directory of your boot drive.

- *Everest*: while fully supporting the clipboard, *Everest* also uses its own clipboard so you must instruct it to use the GEM one by selecting it from the Options menu.
- *Connect*: uses the clipboard which is very useful in on-line sessions. To copy text, simply click and drag the mouse over it. Press the right button to paste it at the cursor position.
- *STalker*: an strange implementation of the clipboard. Set the path to drive Z and hope for the best...
- *Let 'em Fly*: if you have this utility

installed you can cut, copy or paste text from editable text fields – text objects in dialogue boxes. Since no menus are available inside a dialogue box, the way to use the clipboard is via the standard keyboard shortcuts shown in our table.

MULTI-TASKING WITH THE CLIPBOARD

The GEM clipboard can be very useful when using a multi-tasking system like MultiTOS, Geneva or

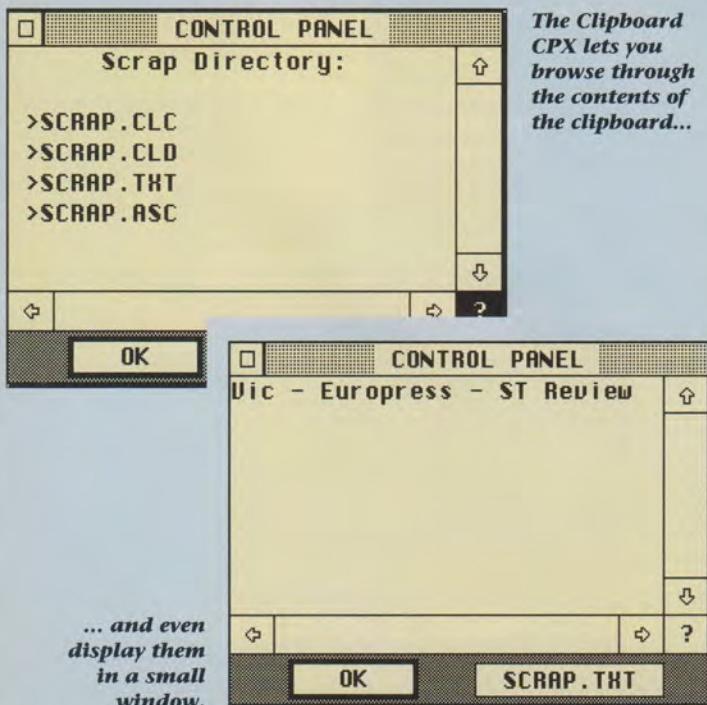


The SDS Clipboard CPX gives you control over the clipboard path and can be used to view the contents of the clipboard.

Mag!X as you can freely move text or graphics between applications.

A new extension of the GEM clipboard has been outlined by Atari. Known as the "Drag and Drop" protocol, it lets you select text in one program and then drag and drop it into another program's window. Support of this feature is spreading and is currently supported by *Edith* and the forthcoming *Papyrus*.

Our new series, *Essential Extras*, starts on page 38. See you there...



... and even display them in a small window.

A PROGRAMMERS GUIDE TO THE CLIPBOARD

The GEM clipboard is a valuable tool that programmers should make use of correctly, unlike applications such as *1st Word Plus*, *Calligrapher* and *STalker* which all have strayed from the guidelines, making the clipboard rather useless.

Surprisingly, including clipboard support in a program is very simple and is outlined here. *HiSoft BASIC* programmers should include the LIBRARY "gemaes" statement while users of C compilers must include the AES header files.

To establish the current clipboard directory, call *Scrp_read* which returns a valid directory string if the clipboard exists or a null string otherwise. If no directory is found, the application should create a folder called CLIPBRD on the root directory of the boot drive. Next, use *Scrp_write* to inform the AES header about the new directory.

When Cutting or copying to the clipboard you must delete all files with the mask SCRAP.*. Now write a file with the name SCRAP.???. The extension should be .ASC for unformatted ASCII text, .TXT for formatted text, .DOC for *1st Word Plus*-compatible text files, .IMG for bit-image data and .GEM for vector graphics. If cutting, remember to delete the data from the application itself.

When pasting data into your application, follow the same path and load the SCRAP.??? file that applies to that application. For instance, SCRAP.IMG would be used for an art package and SCRAP.ASC for a DTP program.

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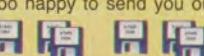
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IT'S A SETUP!

ST Review's GEM programming with HiSoft BASIC shows you how to set up an object's buttons and text this month...

In many cases, a dialogue box may need setting up before it is displayed to the user with default text or some buttons selected. The simplest way of doing this is to create toolbox-style routines to perform the hard work. In fact, we already have one such routine in the toolkit – *Inclib_state* clears a state bit and is normally used to deselect buttons.

A similar routine can be written to perform the opposite, that is to set a state bit. This can be used to select objects, or disable them. If an object is disabled it appears in grey and cannot be selected. Users are familiar with this effect which is normally used to indicate that a function is not available.

SETTING THE STATE

Let's assume that in our example program we want to indicate to the user that the printer option is not available. Since this option is paired with the File button if the user can select one or the other, we may as well select the File button in advance.

NEW COMMANDS

While some of you may be familiar with the commands used in the toolkit, some may find them an additional difficulty in understanding the way GEM works. This need not be the case. The following is a brief summary of BASIC commands in use by the toolkit.

FNsrc_gaddr(0,treeno,tree&): This AES call places the memory address of the tree as specified in *treeno* into the variable *tree&*. You do not need to call this directly.

form_center(tree&,x,y,w,h): An AES call that places a form at the centre of the screen and returns its new coordinates in *x,y,w,h*. Note that this call does not physically draw the object and so has no visual effect.

FNobjc_draw(tree&,object,depth,x,y,w,h): An object-drawing routine that can be used to draw specific objects or a whole dialogue box.

FNform_do(tree&,edit_obj): This AES call allows the user to interact with the dialogue box. The second parameter is used to place the cursor if required on an editable object. If there are no such objects, you must specify 0.

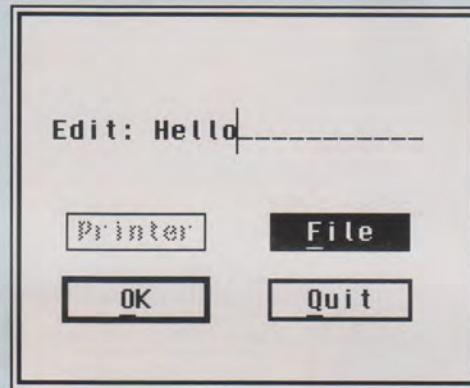
PEEKB, PEEKW, PEEKL: These BASIC functions return the contents of the memory address specified. They are used to obtain bytes, words and longs respectively.

CHR\$: A BASIC function that returns a character by specifying its ASCII value.

LEN: Use this function to obtain the length of a text string.

MID\$(a\$,position,length): This BASIC function returns a portion of the specified string. *MID\$("BASIC",2,3)*, for example, returns three characters starting with the second – "ASI".

ASC: This is the counterpart of *CHR\$* and is used to return the ASCII value of a character.



The new routines can be used to disable one of the radio buttons and select the other before displaying the dialogue box.

LISTING 1

```
' a toolkit routine to set a state bit
SUB Inclib_state(VAL object,VAL flag_mask)
STATIC t&,state
t&=FNObjectAddr&(object)+ob_state
state=PEEKW(t&)
POKEW t&,state OR flag_mask
END SUB

'disabling the Print button
Inclib_state PRINTBUT,mask_disabled

'selecting the File button
Inclib_state FILEBUT,mask_selected
```

The routine is called *Inclib_state* to maintain compatibility with the HiSoft GEM Toolkit. Not surprisingly, it takes two parameters: the object index and the mask value to set, as defined in the *AES.BH* file.

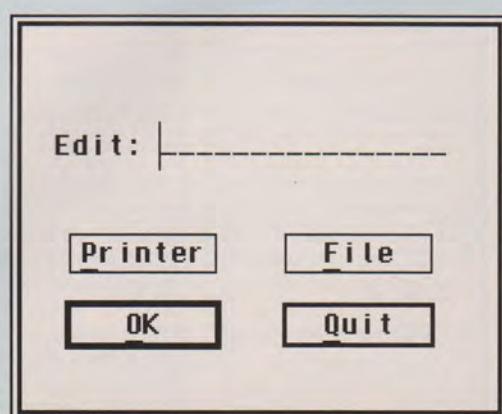
Last month I explained how the logical operator OR can be used to set a bit in a value without affecting other bits. As you may recall, taking the state of an object and ORing it with the mask value has the required effect. So, our routine must obtain the object state and then OR it with the second parameter. Finally, the result is POKEed back into the object state field. Do remember that this

changes the state of the object but has no visual effect until *FNobjc_draw* is called. The routine is shown in listing 1.

The sub-routine works by first reading the address of the object state field into the variable *t&*. It then PEEKs into that address to obtain the current state. Finally, it POKEs the address with the old state ORed with the required mask.

Below the actual routine are two examples of its use, in this case disabling the Print button and selecting the File button. This should be done before displaying the dialogue and calling *FNform_do*.

The dialogue box from the example program features two radio buttons. Selecting one deselects the other.



LISTING 2

```
'a toolkit routine to place text into a text object
SUB Sette_ptext(VAL object,VAL newtext$)
STATIC addr&,chars,i,ted&,ch$
addr&=FNGetob_spec&(object)
ted&=PEEKL(addr&)
chars=LEN(newtext$)
FOR i=1 to chars
  ch$=MID$(newtext$,i,1)
  POKEB ted&,ASC(ch$)
  INCR ted&
NEXT i
POKEB ted&,0
END SUB

'an example of Sette_ptext
Sette_ptext TEXT1,"Hello"
```

PREDEFINED TEXT

In a similar way, editable text objects may contain default text that the user can modify. Alternatively, you may wish to clear a text field prior to redisplaying it in a recurring dialogue box. The opposite routine to *FNgete_ptext\$* from last month will be called *Sette_ptext* and will do this job.

Just like *FNgete_ptext*, the routine works by first obtaining the object spec which contains a pointer to the *TEDINFO* structure that is stored in the variable *addr&*. This memory address is then *PEEKed* to return the address of the actual text into the variable *ted&*.

Note that the length of this text field is fixed by the resource editor. It is easy to overflow this, so care must be taken not to ask the AES to store text strings longer than the one defined in the resource editor.

The next step is to find out the length of the new string. The *BASIC* function *LEN* does the job and places the result in yet another variable called *chars*. The next *FOR...NEXT* loop reads the text string a character at a time, converts the character to

its ASCII equivalent and then *POKEs* the appropriate location in the field (see the New Commands box for an explanation of the *MID\$* and *ASC* *BASIC* commands). Finally, the string is terminated with a null character or 0. This process may appear over complex, but you do not have to fully understand it – just copy it into your toolkit and use it. Listing 2 contains *Sette_ptext* and an example of its use. Note that the routine takes the object index and the new text as parameters.

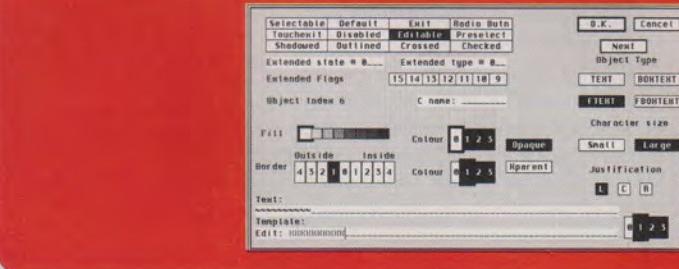
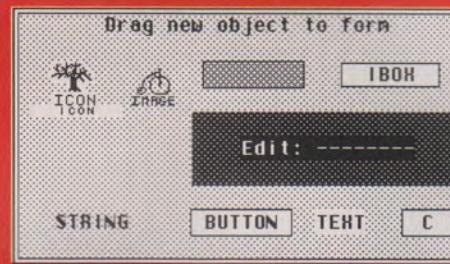
WHAT YOU CANNOT DO

The collection of routines you should now have is capable of most object manipulation required in a GEM application. The files *TOOLKIT.BAS* and *AES.BH* are included on the cover disk for your use. Over the next few months we will enhance the toolkit to allow for menu bars and other useful routines.

You should be aware of the limitations of the current toolkit. First, *Inclab_state*, *Curob_state* and *Exclab_state* must not be used to change the object flags, only the states. Object flags are normally fixed

EDITABLE FIELDS

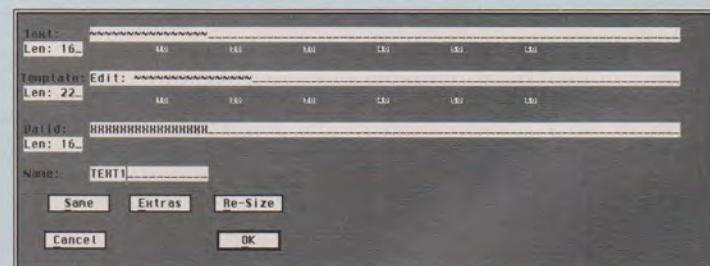
An editable text object is quite complex as it contains two text fields, one of which, the template, is hidden from the user. Fill the first field with the tilde character up to the required length. The template field below can contain some text, but must also include validation characters. A validation character must exist for each tilde in the main text field. Press *<Shift>+<Alt>* and enter a capital X for each tilde.



by the resource editor and do not need changing at runtime. Second, when using *Sette_ptext*, always remember that the length of the text must not exceed the length defined in the resource editor. Further, the routine may not be used

to change text in buttons or strings, only in text objects. This includes *G_TEXT*, *G_FTEXT*, *G_BOXTXT* and *G_FBOXTXT*.

During the remainder of this series, I will introduce routines to enable you to change text in buttons.



An editable text field in WERCS which has similar features to K-Resource but a different layout.

FUNCTION KEYS

In reply to requests from several readers, here is a summary of how function keys may be used in non-GEM applications.

Function keys do not return an ASCII code or a text character. Instead, they simply produce a scan code that may be checked using the *INP(2)* function of the BIOS. The greatest disadvantage of this call is that the program halts until the user presses a key. There are 20 "legal" function keys in total: *<F1>* to *<F10>* and *<Shift><F1>* to *<Shift><F10>*. The following is an example program that will print the scan code for each keypress.

The scan codes for the function keys start at 187 for *<F1>* and 212 for *<Shift><F1>* and increment respectively. Try this program to see how it works. Using function keys in GEM programs is a little more involved and will be covered in this series – eventually...

```
DO
  k=INP(2)
  PRINT k
LOOP UNTIL (k AND &hFF)=13
```

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NEARLY THERE...

In his continuing quest to integrate Prospero C and K-Resource, Jon Ellis proceeds with his GEM Purge program...

LISTING 1
TEDINFO *path_field, *ext_field;

```
path_field = (TEDINFO *)((box+PATH)->ob_spec.ptr);
ext_field = (TEDINFO *)((box+TYPE)->ob_spec.ptr);
strcpy(path_field->te_ptext,path_store);
strcpy(ext_field->te_ptext,type_store);
```

To keep you thinking between instalments of the C tutorial, the last article ended on a question. Why does the following code work most of the time, but fail to invoke the function for some values of "bits" and "bobs", such as 192 and 7?

```
if (bits & bobs)
    do_something_really_interesting();
```

See the *Where's The Logic* box for the answer – and a little more too.

HIGHLY CONCENTRATED

Returning to our GEM file-purging program, Listing 1 contains a fragment from the *get_purge_details()* function. In just five lines, there are at least three new features of C, together with some important new GEM concepts! There is not enough space to cover everything in this tutorial, so you will have to wait until next month for the complete picture.

The code in Listing 1 is part of the interface between the dialogue box

and the program variables that specify the type and location of files to be deleted. The box contains two editable fields, with object indices represented by the symbols PATH and TYPE. The code initialises these fields with the contents of the variables *path_store* and *type_store*.

Let's start by looking at the last two lines.

The *strcpy()* library function is one we have already met. It copies the string pointed to by its second argument into the string addressed by its first argument. In this code, the first argument in each of the *strcpy()* calls has a format we have not seen before. To explain why this is, we need to know more about how GEM handles text fields in dialogue boxes.

WHAT'S IN THE BOX?

The story starts with the elements that make up a dialogue box. Three tutorials ago, we found that each item is described by a list of numbers in a format called an AES object. This is represented in *Prospero C* by a structure associated with the type OBJECT. See *The Object* box for more details.

Leaving aside for the moment the strange-looking definition of the *ob_spec* member, notice that there is no space for text in the structure. How then are text fields represented?

The answer is that in object types associated with editable text fields, *ob_spec* is used as a pointer to a supplementary structure elsewhere in the resource file that holds the text information. This structure is associated with the TEDINFO type.

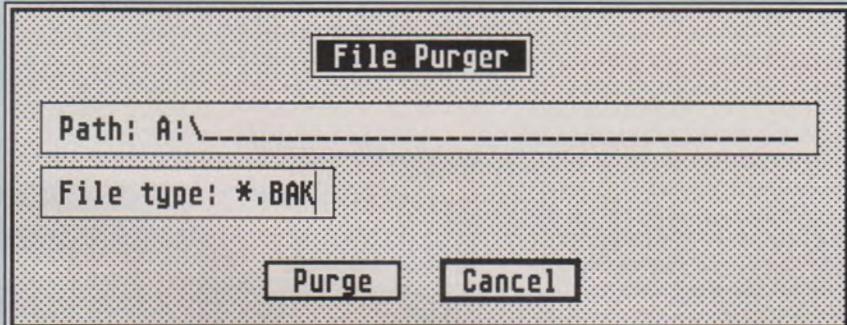
A full description of this structure is not necessary for the moment, though any good GEM reference book will be able to enlighten the curious. The relevant structure member for our purposes is one called *te_ptext*, which points to a string containing the text that the user sees and edits.

PLAYING WITH POINTERS

When we first met structures, we accessed members using the dot operator. For example, if "field" is a TEDINFO structure, the *te_ptext* member can be accessed like this:

```
string = field.te_ptext;
```

In many cases though, structures are processed using pointers, because these are much easier to pass between functions. To get at the



Here, our purge program is set up to delete all 1st Word Plus back-up docs on the floppy in the internal drive...

A UNION MAN

A question often asked by programmers moving to C from other languages goes something like this: "What happens if I want to store data of different types in the same variable?". Mostly the answer is "You shouldn't", but occasionally there are times when it is necessary to do this.

To combine several data types into the same physical space, C uses a construct called a **union**. Unions are strongly related to structures; they share the same declaration format, and are processed using the same operators.

To see how unions work, consider writing a program to process the scores from reviews of software packages. One magazine may give a percentage score, another a mark out of 10, and another might give an alphabetic rating.

Using a union, all of these systems could be accommodated in one variable. A suitable union declaration might be:

```
union rating {
    char grade; /* For grading A to E */
    int marks; /* For marking out of 10 */
    float percent; /* Percentage score */
};
```

Just as with structures, this code defines a template. To declare a variable with this organisation, the code is:

```
union rating score;
```

Given such a declaration, information is stored in the union by accessing the members as though they were structure members:

```
score.grade = 'D';
score.percent = 87.5;
```

The compiler will allocate enough space in the executable file to hold the largest object in the union. A helpful way of remembering unions is to think of them as being just like structures, except that all the members are overlaid on top of each other in memory.

Having used a union to store data in one of several different representations, it is vital to keep track of which form is current. If we try to read out a value stored as a percentage by treating it as a grade from A to E, we will end up with rubbish. The requirement for tracking the content of the union is a potential source of bugs. For this reason, as well as for program clarity, unions are best used sparingly...

WHERE'S THE LOGIC?

The answer is that the bitwise-AND operator (`&`) has been used instead of the logical-AND operator (`&&`). We have already seen examples of logical-AND in previous tutorials:

```
if (strcmp(dir.filename,".") != 0 && strcmp(dir.filename,"..") != 0)
{
...
}
```

The vital difference is that logical-AND evaluates its operands for TRUE (non-zero) or FALSE (zero), and then combines these answers according to the AND truth-table to obtain a TRUE or FALSE result. Bitwise-AND processes the operands *bit-by-bit*, resulting in a numeric answer. In the code in question, this number is then tested by the if for being zero or non-zero, and a decision made.

In most cases when both variables are non-zero, the bitwise-AND will also be non-zero, and the code works as intended. However, for some pairs of values like 192 and 7, the test fails because the result of ANDing each pair of bits is 0, and therefore the overall result is also zero. This can be seen more clearly by considering the binary representations of the numbers:

```
11000000
00000111 AND
-----
00000000
```

In addition to logical-AND, there are also symbols for logical-OR and logical-NOT: `||` and `!` respectively. Logical-OR makes its debut in this article, logical-NOT you have seen many times before in if tests. These behave just like logical-AND, except that they follow different truth tables, as shown in Figure 1 of the last tutorial.

Based on the bitwise operators, you might also expect there to be a logical-EOR operator with the symbol `^^`. This does not exist in C, but it is easy to write an equivalent:

```
if ((a || b) && !(a && b)) /* Logical EOR lookalike */
{
...
}
```

`te_ptext` member using a structure pointer, we simply apply the indirection operator `**`:

```
string = (*fieldpointer).te_ptext;
```

Brackets are used to ensure that the indirection is done first. In fact, this construct is used so frequently that C provides a special operator, `->`, that makes the code easier to read. The example above is normally written:

```
string = fieldpointer->te_ptext;
```

PUTTING IT TOGETHER

Now you should be able to figure out how the `strcpy()` lines work.

`path_field` and `ext_field` are pointers to TEDINFOs that are initialised by some as-yet inexplicable incantation to point to the TEDINFOs for the "Path" and "Type" editable fields. By copying into the `te_ptext` strings, our code sets the initial contents of the editable fields. After the user has clicked on "OK" to end the dialogue box interaction, edited versions of the strings are copied out of this area, back into the program's working variables.

CLEARING UP

Going back to the OBJECT structure, the `ob_spec` member needs further explanation. The member name is preceded by something new: a

SEPTEMBER ISSUE IS SOLD OUT...

... but we still have some of the cover disks! If you missed out on *Prospero C* and would like a copy of the disk along with the first tutorial, send £2.50 (payable to Europress Enterprise) to: *Prospero C Disk, ST Review, Europa House, Adlington Park, Macclesfield SK10 4NP.*



union declaration. Unions are a way of allowing one variable to be used to contain several kinds of data. The AES treats `ob_spec` as a 32-bit quantity that is interpreted in different ways depending on the type of object under consideration. For example, in `G_BOX` objects, `ob_spec` is treated as an integer that specifies the colour and width of the border; in `G_STRING` it is a pointer to the text of the string; and in `G_ICON` `ob_spec` is a pointer to another

structure that describes the icon (an `ICONBLK`). Three types of data: unsigned long, pointer to char and pointer to `ICONBLK`; but only one 32-bit quantity – how is it done? See the *A Union Man* box for the answer.

In the next tutorial, we will find out what all the mumbo-jumbo around the initialisation of `path_field` and `ext_field` actually does, and learn more about rolling your own variable types.

THE OBJECT

The *Prospero C* representation of the AES object construct looks something like listing 2. WORD is a user-defined data type that specifies a 16-bit integer. It is not a standard C type, but is defined in `aesbind.h`. User-defined types will be covered in the next tutorial.

The fields `ob_next`, `ob_head` and `ob_tail` describe the object in relation to the other objects in the tree. `ob_type` determines the nature of the object (button, icon, text field and so on). `ob_flags` contains a list of properties that controls how the user may interact with the object. For example, `SELECTABLE` objects can be clicked on.

`ob_state` contains a similar list that describes the current appearance of the object (for instance, greyed-out objects are `DISABLED`). The meaning of `ob_spec` varies depending on the nature of the object. The remaining fields relate to the position of the object on the screen and its size.

Further details of the OBJECT structure and how it is used to create menus and dialogues can be found in most GEM programming guides, including the *Prospero C AES Manual*.

```
LISTING 2
struct object
{
    WORD ob_next;
    WORD ob_head;
    WORD ob_tail;
    WORD ob_type;
    WORD ob_flags;
    WORD ob_state;
    union {
        void *ptr;
        unsigned long longval;
    } ob_spec;
    WORD ob_x;
    WORD ob_y;
    WORD ob_width;
    WORD ob_height;
}
```



The Cancel button was selected.
Program aborted.

Quit

A swift click on the Cancel button leaves your files to fight another day!

Last month I promised you something a little bit different – enter **The Butterfly Effect** run by Indra Sinha. This BBS, set in West Sussex, is as different as they get. Computer-specific file areas give way to general information, often with a green tinge and the message areas reflect this ideal.

LOST IN THE JUNGLE

Where to start? It would be possible to fill this page by writing about just a single part of this BBS, so I'm going to limit this trip to a few specific areas. The rest is up to you – happy wanderings!

The most important aspect of

the board is the [I]nformation section. Indra spends a lot of his on-line time sourcing data from anywhere around the globe which he then catalogues and places in the relevant section of the file area. Areas range from Chaos Theory through International Law to Zen Buddhism. Each holds one or more files that may be read on-line or downloaded for perusal later. There are various methods available for easier info-management (see the box) that allow you to find that all-important file on Egyptology, cruelty to animals or virus immunisation!

The [D]atabase area is much like [I]nformation but it takes a more specific look at a few



FLYING VISIT

And now for something completely different as Graeme Rutt pays an armchair visit to The Butterfly Effect...

HOW TO... INFO-MANAGEMENT

On The Butterfly Effect, information management is the name of the game. The information held on the board – just in the files area, in fact – runs into tens of megabytes. Finding information "by hand" would be difficult, perhaps nigh on impossible. So, let's look at some techniques you can employ to ease your way down the info-highway.

First hit <1> to pull up the information menu. The first three entries are the important ones (apart from the help texts, in case you get stuck). I'll run you by them, one by one.

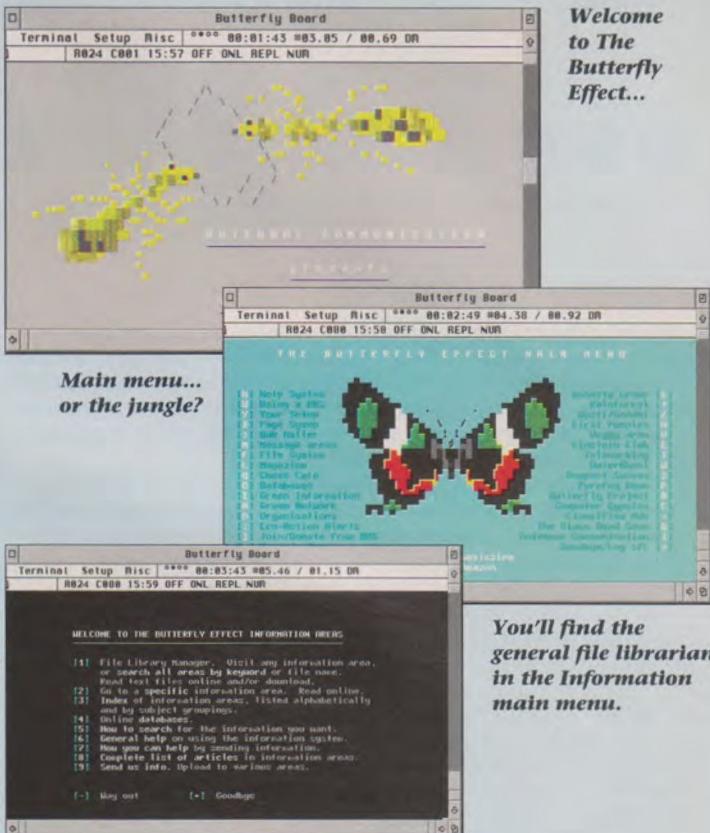
The first <1> is the general file librarian. In here you're given an unsorted list of file areas. Page through them by hitting the <1> key and select an area by typing in its number. Then you can either [d]isplay the file, [v]iew the archive (if it's compressed) or [t]ag it for downloading later. Of most interest here though is the [F]ile search option which allows you to search for a file via either its filename or description.

The second <2> is an alphabetical tree of subjects. If, for instance, you want to know about computers in schools you would first hit <C>. Then a list of things starting with C would come up. When you find the file area you want, you can [I]list the text files, [r]ead them on-line or [d]ownload them.

Finally, <3> is a more general search, ideal for browsing with file areas listed either alphabetically (<1>) or by subject (<2>).

These three methods (keyword searching, search trees and general lists) are to be found on almost all info-management archives. They provide an excellent way of finding data fast – the best of luck on your data travels!

Welcome to The Butterfly Effect...



You'll find the general file librarian in the Information main menu.

subjects of special interest to Indra: butterflies and moths, green organisations, computer virus protection and so on. Also, check out the [O]rganisations menu for a list of companies, charities, groups and the like.

This is a network board. It's a member of the vast FIDOnet network and carries upwards of 100 message areas, many of which are discarded by other boards as *minority interest* – read "not about computers". Take a look at the messages by hitting <M>, follow the prompts and choose your poison.

The BBS uses the excellent *Remote Access* bulletin board software which makes reading and replying to a doddle. It works much like the *Turbo* system – read forward/backwards/new and so on – and shouldn't provide you with many difficulties.

FINE CAUSE

Finally, there's the Amnesty section, <&> from the main menu. This deals with Amnesty International, the leading human rights organisation. In here you'll find information on Amnesty, a message area and an oft-updated "urgent actions" database.



SYSTEM INFO

Phone Number: 0825 890288
(West Sussex)
Sysop: Indra Sinha
Times: 24 Hours
Speeds: v32bis (14400)
with v42bs

You'll spend some time looking through the file areas...

FRONTIER FREE

Mark Baines looks at the world's largest network – the Internet...

The Internet started in 1969, when the US "Defense Advanced Research Projects Agency" (DARPA) gave birth to the Arpanet as an experiment to see if computers could be linked together across the country. Academic and military installations linked their own networks into it and used it as a means of communication. After a while this "network of networks" grew to cover the world and is what we now call the Internet. It is accessible by anyone with a computer and modem.

Internet is free – no one owns or runs it although each individual network on it is governed by someone. You do need an access point – if you're a student or work for someone with a network then you may already have Internet access. If you're not that lucky then you need a service provider such as Demon or CIX. Demon gives you full access to the Internet and all the marvellous things it offers. CIX is the biggest conferencing system outside of the USA; it carries over 2,000 discussion groups, rather like a very large Bulletin Board System. It also gives you access to the Internet, although not as freely as Demon does. Many prominent companies provide support on CIX and many of ST Review's writers are on there.

ELECTRONIC MAIL

Once on the Internet, you can send electronic mail ("e-mail") to any other "Internettter" once you know their address. This includes at least 20 million people, with many millions more on networks not directly connected to the Internet but nevertheless accessible once

THE ATARI NEWSGROUPS

*comp.sys.atari.st:
comp.sys.atari.st.tech:
comp.sys.atari.advocacy:
comp.binaries.atari.st:
comp.sources.atari.st:
comp.sys.atari.8bit:*

Non-technical matters
Technical matters
Informal chat
Programs
Source code for programs
Atari 8-bit



you know how. Say "hi!" to me at msbaines@cix.compulink.co.uk!

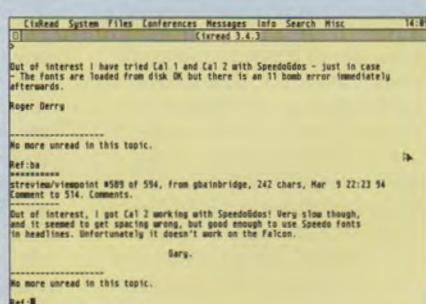
You can obtain files from any other site in the world that allows this, by a method called **anonymous ftp**. You make a connection by typing "ftp <site address>" followed by "anonymous" at the "Name" prompt and your own address as the password once you're connected to the remote computer. You can then wander around the

The ST Review conference on CIX – good news for Calligrapher users...

Changing directory and getting a file from Imperial College is easier than it looks – honest!



directories, downloading whatever you want as if they were on your own disk. One of the best sites for Atari files is the University of Michigan in



the USA (atari.archive.umich.edu) but this is usually very busy. In this country, Imperial College (src.doc.ic.ac.uk) is the largest depository of files in Europe and also takes everything that the University of Paderborn in Germany and University of Michigan in the USA obtain.

Also of use is the **telnet** facility which allows you to connect to a remote computer and get it to run programs there, showing its output on your computer screen. All the power of a mainframe and its resources at your fingertips! With **telnet**, you can do some powerful searches for information, files and other resources and then use **ftp** to get the relevant files.

USENET

If it's talk you're after then the **Usenet** is what you want. The **Usenet** is an informal world-wide group of systems that exchange news in the form of newsgroups. These are similar to echoes or conferences in a Bulletin Board network. These messages are transferred on the Internet all over the world and at last count, there were over 8,000 different ones. There are six specific to Atari computers, two of which don't carry messages but hold files in a special form called a **UUENCODEd** encrypted manner which allows files to appear as text messages. These files can also be obtained from the micros.hensa.ac.uk site by **anonymous ftp**. The Internet is expanding rapidly and costs are falling. It is the place to be!

INTERESTING ATARI ANONYMOUS FTP SITES

Address

atari.archive.umich.edu
src.doc.ic.ac.uk
src.doc.ic.ac.uk
athene.uni-paderborn.de
micros.hensa.ac.uk

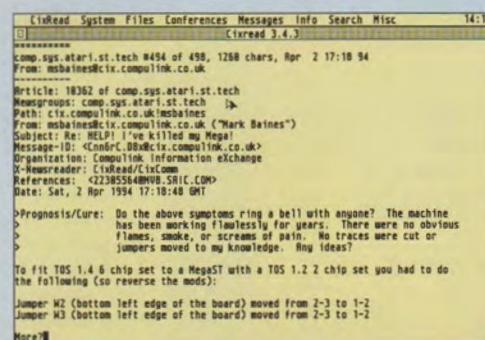
Directory

/atari/
/packages/atari/umich/
/packages/atari/uni-paderborn/
/atari/
/micros/atari/

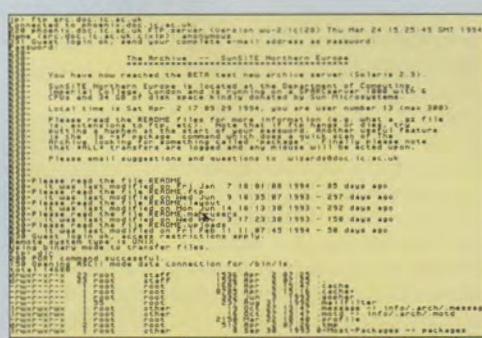
CONTACTS

Compulink Information eXchange Ltd (CIX):
081-390 8446

Demon Internet Ltd:
081-349 0063 or
031-552 0344



Performing an "anonymous ftp" from CIX to Imperial College.



Helping out someone in a world-wide Usenet newsgroup.

ASK THE EXPERTS

ST Review's bunch of experts put their brains into gear to answer your questions...

CHEAP COPIER

I recently upgraded to TOS 2.06, and the time taken to format my new high density disks was infuriating – 105 seconds from the desktop. In October there was an article by Andrew Wright who stated that the best formatter was *Diamond Format*, which I purchased.

Although it has many features, it took 190 seconds to format the same 80 tracks and 19 sectors, and did not show bytes free – hardly the best I would say!

After going through various PD catalogues, I obtained *HCOPY16S* by Martin Weiss, which is a shareware copier/formatter. It is by far the best, offering all the features of *Fastcopy 3* and more including Scan Disk, Multiple Copy, Verify Disk, Virus Protection, Zero Disk and Fast Format. Oh, and you can also alter step rates.

The layout is identical to *Fastcopy*, and clicking on Fast Format did the job in 35 seconds with normal format 65 seconds – honest! And with 1,461,760 bytes free. It is also faster than the rest with standard double-density disks. The one snag is that the manual is in German – why don't all PD libraries state this as Floppyshop do, for example? Had I known this I would have missed this program because I would probably not have bought it.

I hope this is of help to readers and Andrew Wright! I hope next time I pick up the mag I read about this gem as no-one should be without it. If anyone can translate the text, that

would be brilliant – maybe we will see an English version on the cover disk in time.

Finally, I would like to see a readers' list of desk accessory programs they would not be without so that we can all pick up new ideas.

Joe Egan, Glasgow

*Formatting a high density disk from the desktop generally takes around 100 seconds though some programs will do it a lot faster, I agree. *FastCopy Pro* claims a fast formatting time of 32 seconds, though it works out at around 36 seconds in practice. As this is similar to your *HCOPY16S*, it would appear that they use the same method.*

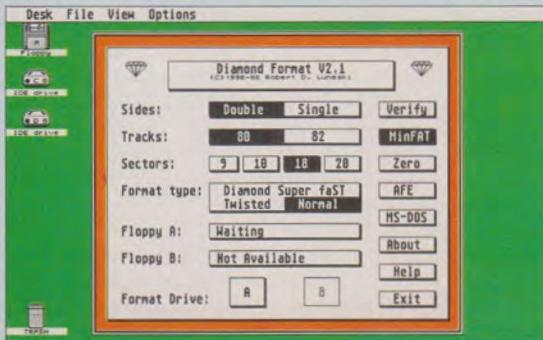
Fast formatting, by its very nature, isn't as reliable as the normal methods. The entire track isn't initialised so occasional read/write errors will inevitably occur. I certainly wouldn't trust a fast formatted disk with vital data.

*I can't understand why *Diamond Format* is taking so long to format your disks. It formats my high density disks (80 tracks, 18 sectors) in a respectable 80 seconds and while *FastCopy Pro* will format disks the same way in around 68 seconds or so, you'd have to be formatting an awful lot of disks to make it matter!*

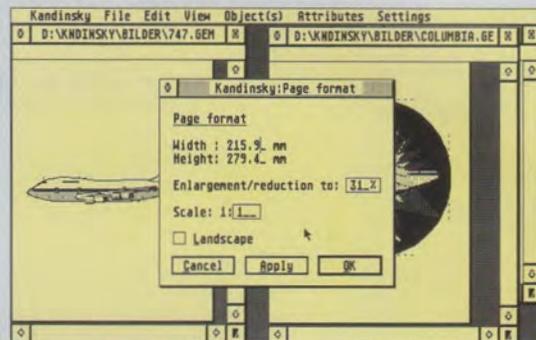
Diamond Format has a nice, clear interface (all in English, I might add!), runs as a program or accessory and offers options for compatibility with Apple and MS-DOS machines as well as zeroing and extended formats.

*Incidentally, there are two versions – v1.0 and v2.1 (v2.0 was a commercial version supplied with *Diamond Back 2*, the hard disk back-up program). The later version adds the Diamond Superfast format and smaller FATs.*

*Personally, I consider *Fastcopy Pro* to be the best formatter, but as we put a limit of £20 on programs highlighted in The Cheap End series, it didn't get a mention. Andrew Wright*



Diamond Format the second – a good all round formatter with excellent compatibility.



Shareware special – Kandinsky is a good example of a German program with a high quality GEM interface.

SEE HERE...



Is there a good GEM toolkit (like *MyDials* or *HGT*) in the PD or shareware market for Lattice C 5.52, as I can see no point in re-inventing the wheel! If not, would HiSoft consider producing a C version of the HiSoft GEM toolkit, or make the basic code available at a reasonable cost, as a conversion shouldn't be too difficult. Equally, are there any database file handling routines for Lattice C available?

Richard Evans, Dorset

constructed with the minimum of fuss. The distribution archive contains full documentation, several demo programs and best of all, complete source code, so you should be able to add to it for your own purposes.

The problem of database file handling libraries is a little more thorny. As far as I know, there are none specifically designed for Lattice C on the ST. There may be something in the GNU collection or in the PC public domain that could be ported into the Lattice environment, but that could involve quite some work... Jon Ellis

One of the hallmarks of a lot of recent German freeware and shareware has been the incorporation of advanced forms of GEM interface. No longer are programmers sticking to the basic objects and facilities offered by the standard AES library. Programs such as Kandinsky feature new objects, dialogue keyboard shortcuts, and dialogue boxes in windows.

Although such features are not impossible to code into each application, many German programmers have used existing collections of routines to save time. Kandinsky, for example, uses *MyDials* by Olaf Meisiek. The problem for UK programmers has been two-fold. First, limited availability of toolkits with English documentation, and secondly, compiler compatibility. Most German C programmers use Pure C, whereas Lattice C seems to be more popular in the UK. In principle, porting from Pure C to Lattice C is easy, but you need access to the source code; something that few toolkits provide.

I do not know of any Lattice-compatible toolkit that is yet as comprehensive as *MyDials*, but a decent Lattice windowed-dialogues package has just been released into the public domain. *FLDLIB* by Martin Maisey is a freeware library that allows interfaces with non-modal dialogue boxes to be



Collector's item – a hand scanner and *Fastbase* are all you need to catalogue a stamp collection...

STAMP OF APPROVAL



I've just bought a hand scanner and I'm writing to ask if you can help me find a database program capable of handling graphics on my Atari 1040ST. I'm hoping to catalogue my stamp collection and after a couple of trial scans my idea seems feasible. Any help would be appreciated.

G. Stanley, Yorkshire

I'm also a stamp collector and have been considering setting up my own database for some time now!

Fastbase (shareware, available from most PD/shareware libraries) is particularly suitable for this kind

of database. Its flexible record layout and support for .IMG, Degas and .TNY formats make it an excellent choice for a simple graphical database.

Fastbase records can have image files attached which can either be displayed on screen or called on request (by clicking on an image icon). Rather than storing each image internally, Fastbase remembers their location and only loads an image when necessary. This approach keeps the database file small and leaves the images accessible for editing or use in other applications. If you're running on a floppy-based system, or if memory is tight, this is obviously a big advantage.

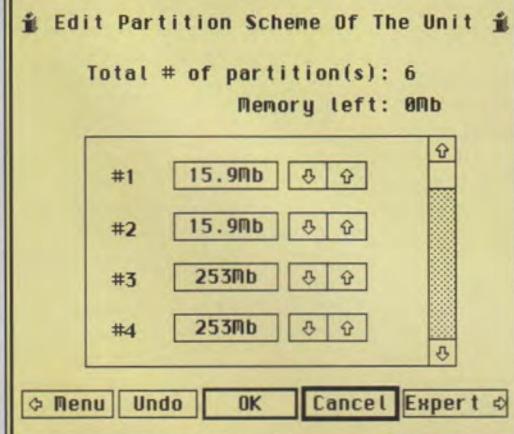
A hand scanner is ideal for scanning stamps and one of the few occasions where a hand scanner is just as good as a flat bed! Unless you intend to use high resolution scans in other applications, or output the images in fine detail, there's no point scanning your images at anything higher than 100 dpi as your screen or monitor won't be able to display the difference. As a general rule, keep the resolution to the minimum necessary as this conserves both memory and storage space, particularly important if you're running on a floppy-based system. Joe Connor

SYSTEM SORTER

I run a 520STFM with 2.5Mb of RAM, switchable TOS 2.06 and a double-sided internal drive.

a) Can you tell me what is the maximum partition size for a hard drive that TOS2.06 can go to? Because of the availability of gigabyte hard drives for quite reasonable prices, I would like to have a 2000Mb hard drive for C (boot drive) while for a working drive, I am looking at a 500Mb to 1Gb or even possibly up to a 2Gb drive.

b) Is there a Virtual RAM program for the ST that would allow me to use hard disk space as memory?



Spread out
- Atari's
hard disk
program,
HDX, allows
partition
sizes of up
to 512Mb.

I'm lost -
GEMView 3 may
be an excellent
program, but you
still have to tell
it where to find
its modules!

- c) Can you recommend a PD library where I could acquire a program called FOLDERRXXX.PRG?
- d) Is there a utility that allows you to split a program that would normally be on one disk onto, say, two or three by displaying a prompt like "please insert disk 2" and the like?
- e) Can you advise me of sources of other CPX's and where to acquire them?

S. J. Hewitt, Reading

The maximum size of a hard disk partition is limited to 32,767 sectors in TOS versions prior to 1.04 and to 65,535 in later versions. A sector size is normally 512 bytes and so standard format partitions can be 65,535 x 512 = 33,553,920 bytes, or just under 32 Mb with TOS 1.04 and later. However, sector sizes can be extended up to 16Kb, bringing the maximum partition size to almost 512Mb.

It is wasteful to define too large sectors because even a tiny file of 10 bytes will still occupy two sectors! If you do get a 1Gb drive, I recommend that you keep the boot drive to 16Mb and divide the rest of the drive into four or five partitions. This will result in a good compromise between ease of access and efficient use of space.

Virtual RAM programs can only work on 68030 processors as found in the TT and Falcon. There are such processors available for the ST, but these are rather expensive.

All PD libraries should have the folder patch program in their catalogue. This is normally part of a package called Rainbow TOS patches and is recommended for all TOS versions except MultiTOS and MagIX. The ST Club and other PD libraries produce printed catalogues where you should be able to find this and also various CPX modules. Alternatively, if you have a modem, many bulletin boards also have a large collection of files that you can download for free.

Finally, there is no utility to my knowledge that can split a program over several disks. The

program would have to be written to cope with such an arrangement and all programs I have come across for the ST fit onto one double-sided floppy. If needed, it generally loads additional files such as fonts and printer drivers from a second disk. Ofir Gal

WILD THING



Thank you for giving away GEMView 3 on your cover disk. It is a very good program; however, I am having one or two problems that I hope you will be able to explain.

Firstly, the program does not work properly when I copy it to my hard disk. It runs, but keeps telling me that "Drive A is not responding" and then refuses to load any pictures. What am I doing wrong?

Secondly, I have some clip art that I would like to convert to .IMG format for use with Timewarrior DTP. I have tried to use the "Convert Image" dialogue box but the file box only lets me choose one picture at a time - is there any way around this? I think I need to use "wildcards", but unfortunately, I don't know how to!

D. Parker, Bristol

GEMView 3 is modular and as such needs to be able to know where its support files are at all times. The cover disk version was set up to look on the floppy drive, but once the whole folder has been copied to your hard disk, you need to tell it to look there instead. To do that, choose the "Install Path" menu option and click on "A:\GEMVIEW\" when the dialogue box appears. Now just locate the GEMVIEW folder on your hard disk, click on the "OK" button and all of the modules will be reloaded. To make the changes permanent, choose "Save" from the "Work" menu.

As for converting masses of clip art in one go, you can either use Selectric (a shareware file selector replacement which will allow you to choose more than one file at a

time) or, as you suspected, you can plump for the wildcard approach.

The wildcard system uses two characters to allow multiple files to be chosen - an asterisk, which means "any file" and a question mark, which stands for "any character". The only thing that you need to bear in mind is that portions to the left and right of the full stop in an Atari filename are counted as separate entities. Therefore, "*.*" will load all files in a directory, ".GIF" will load all files with a .GIF extender, while "PIC.P???" will load every file that has PIC before the full stop and a .P?? extender (PI1, PI2, PI3, PC1 and so on). Nial Grimes

PC OF CAKE!

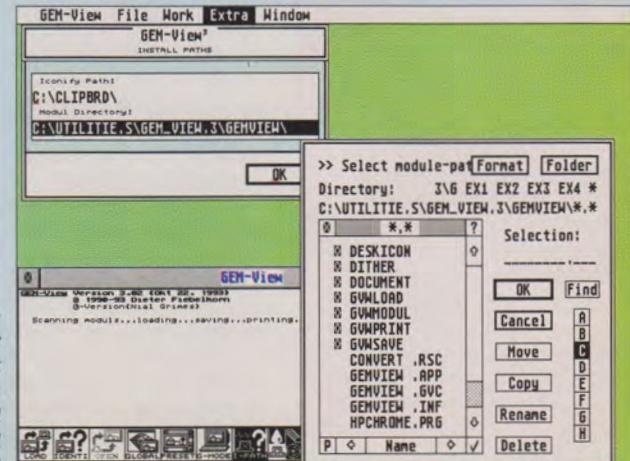
I am taking a word processing course at a local college and would like to use my son's 1040ST to practice my skills at home. I have borrowed a copy of the software we are using (PC-Type) and can see the program on the disk, but it just won't work. Why is this?

S. Williams, Edinburgh

While the physical structure of the disk is the same, the ST is a totally different machine to the PC - it speaks a different language if you like. Computers generally won't run each other's software, but there is a world-wide standard for text, called ASCII. Therefore, the easiest solution to the problem is to save your work as ASCII in college and then to load it into an ST word processor, such as Calligrapher.

If you really do want to use PC-Type on your son's machine, you will need to invest in an emulator, which makes the ST think it's a PC. These range from simple (and slow) software-only packages such as PC-Ditto to the more effective hardware emulators like AT-Speed. Contact Compo on 0487 3582 for more details.

Nial Grimes



**Have your say,
become a star
– and earn
£25 into the
bargain!**

LETTERS



CLEARER SHAREWARE

I read with interest the *Points Of View* Star Letter from issue 24, referring to the issue of giving shareware authors a return from their work. The problem with shareware is that many authors don't want pounds sterling, as they don't live in Britain. This

means that anybody who wishes to register has to go to a *Bureau de Change* or a bank and get some of the relevant currency. This can be a lot of bother; it would be so much simpler to be able to send a cheque!

After some consideration, I have come up with a system where this is possible. All we need is a "central clearing house" to which all registrations (and cheques) are sent. This central clearing house would cash in the cheques, change pounds into the appropriate currency, and send this, along with the addresses of those who are registering, to the appropriate author. The author can then send any key codes to the addresses supplied to him. To help get the system going, PD libraries would put a small explanatory file with the address of the clearing house on each shareware disk they distribute. In this way, it is simple to register, the author gets his money, and the "try before you buy" philosophy remains intact. The only problem is the clearing house – who would be prepared to take this on? It would be possible for the clearing house to make some money, if those registering automatically added, say, a pound to each cheque, for the clearing house. It would certainly be worth it for the convenience! However, that still leaves the question open; perhaps someone could come forward to put this system into action.

What I have said here could of course easily apply to other countries – in a few years' time there could be a whole network of clearing houses all over the world!

Robin de la Motte, London

Part of what you put forward is already in place – Graeme Rutt and Joe Connor, two of ST Review's

writers, individually collect registrations for a number of German programs (including GEMView, Everest, Selectric and Kandinsky) and pass these, along with the money, onto the authors. As far as I am aware, they do this almost gratis which means that there will probably come a time when they will question the point of carrying out such a service.

It took Graeme and Joe quite some time to win the trust of the authors and it is this aspect that may prevent a central "clearing house" operation from being successful. But it's a good idea – as is the making of a small charge for such a service.

Perhaps it's time we started looking at shareware as being budget-priced commercial software rather than viewing it in the same light as public domain. Such a re-evaluation would lead to a greater respect for the decent shareware that exists – and plant the remainder firmly at the bottom of the wastebasket.

FALCON AHoy!

I don't believe it! On a routine shopping expedition to Debenhams, Manchester, there in a rather swanky new computer department, nestled amongst the WC-compatibles in a "Professional Users Environment" – was a Falcon! However, all is not well. After unplugging the mouse from the modem port on the back and fixing it correctly, I asked if I could be shown what it could do, and was told by a rather puzzled assistant that there wasn't really any software that they had, and no-one really knows anything about the machine. However, I later discovered Cubase Audio, and another direct-to-disk program lurking in a display cabinet!

Silica – the Falcon will never sell itself if it is just left with its (admittedly very colourful) desktop on display. Thanks to another Atari cock-up, it looks like a toy, and unless people see just what it can do, no-one is going to think twice about parting with upwards of £700.

There are more PD demos appearing which are starting to show what the machine is really capable of, so why not have some running continuously? Why not get one of the assistants to become really conversant

with the latest software – direct-to-disk recording, graphics manipulation, raytracing and the like? Hardware and add-ons like Falcon Eye and PC emulators are very impressive and could help convince prospective buyers that it's the best machine.

Manchester has been an Atari-free zone for some time now, and as it seems the latest fashion to have nothing to do with the firm, congratulations and well done to Silica for showing confidence in the ST, Lynx and Falcon. Anyone living in or around Manchester should make sure that their confidence is rewarded.

R. G. Casey, Manchester

I know exactly what you mean. When I covered the opening of the Silica Store in Debenhams, London, there, taking pride of place next to a couple of PCs, was a Falcon. While there wasn't a mouse in view, I used the age-old trick of controlling the cursor via the <Alternate> button and cursor keys to open up the various hard disk partitions – and all were empty apart from the boot partition!

Even better, the machine had MultiTOS installed which meant that anyone trying to run a program would have been far from impressed by the speed. Ready, steady, go? More like ready, steady, slow!

Admittedly this was the very first day of opening – the ST on display wasn't even plugged in – and as I'll be wandering into London in the near future, I'll report back on the situation then. As for congratulating Silica for having faith in Atari computers, I agree with you entirely. Now, how about you readers sending me in a list of software that should be on display on both the Falcon and ST – I'll pass it on to Silica...

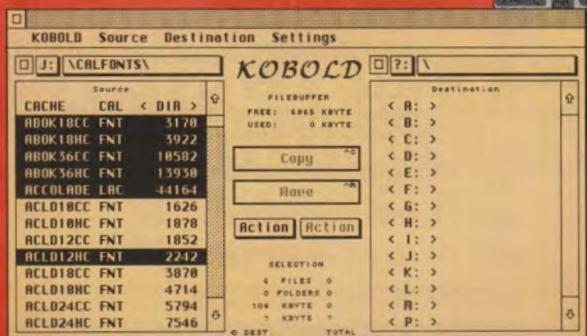
COVER CD?

Why don't you follow in line with other computer mags and supply a CD-ROM disc with the mag?

I would be pleased if you would print this in the next issue, or redo the reader questionnaire and see what response you get. If it is a good CD-ROM, I can't see why your readers won't pay £1.00 extra for the disc. I can understand if most people

Please do not send stamped addressed envelopes; personal replies cannot be entered into. All mail received is considered for publication unless otherwise stated and we reserve the right to edit letters where necessary without altering the context.

Backroom boys - amongst a host of features, Kobold and NeoDesk 4 both provide background file copying and disk formatting.



TOO LITTLE, TOO LATE

I read with a great deal of interest your article on TOS and MultiTOS (TOS For Tomorrow, issue 26). While the improvements are impressive, I can't help feeling it is a case of too little, too late. My reason for this is that most of the improvements seem to be merely cosmetic. The only fundamental change is the handling of the AES under MultiTOS, and while the other changes to MultiTOS are useful, they are hardly vital.

What is needed is support for long file names, background file handling, virtual memory and a complete rewrite of the serial port code. While I applaud the changes that are being made, I feel that Atari have only made a half-hearted attempt at improving the operating system.

On a side note, I think the change of look and the changes to the marking scheme can only make an already impressive magazine even better.

Edward Phillips, Avon

The intention of our "TOS For Tomorrow" article was to give you an insight into the development that has been taking place within Atari. If you also read my interview with Bob Gleadow, you'll be aware that the development team are currently working on the Jaguar CD-ROM drive. Even when this is finished, it is far from certain whether the team will continue with its work on improving the operating system.

Whether or not the improvements are a case of too little, too late is

don't have a CD-ROM drive, but how do you know? Have you asked around in the mag? No you have not – I have not seen anything like a question to that effect.

I am planning to add a CD-ROM drive to my STFM, but I need to

know if it will be worth my while. In excess of £120 is a lot of money to spend on a drive only to find that there is no support from the ST mags.

Please take this seriously, as I would love to have the option of

likely to be a subject for hypothetical debate and little else.

You sum up some of the user needs very accurately, especially background file management. In fact, these are part of the auxiliary programs that you can get for Geneva and Mag!X, namely NeoDesk 4 and Kobold/Ease respectively as previewed last issue. The Kobold demo on our last cover disk will certainly have given you a taste for fast file copying!

In my mind, the real question is this: at what point do we start to treat the likes of Mag!X as though they were true Atari products? Is there really any difference between a German or American company releasing an excellent piece of system software with superb facilities, and having such a product with the "Atari" name emblazoned on it? I would suggest not. After all, MultiTOS could be viewed as being just another piece of system software to which Atari Corporation acquired the rights by taking Eric Smith and MINT on board.

During my recent trip to Berlin, I was fortunate enough to see a full-blown Mag!X system running. Bearing in mind that Mag!X completely replaces TOS and integrates seamlessly with Kobold and Ease, its file management and desktop programs, I can honestly say that I would be happy to have such a system on my ST. Similarly, I was also impressed with the way NeoDesk 4 operates with Geneva during the short time I spent with that system recently. Rather than bemoan the fact that MultiTOS doesn't deliver what we need, shouldn't we be celebrating the existence of two excellent system enhancements?

As for the ST's serial port, this has to be the biggest disaster outside of Atari not initially incorporating GDOS into TOS! There are various hardware modifications available to substantially speed data transfer, one of which was recently covered in ST Applications, and System Solutions are currently considering one that would provide a data rate almost on par with floppy disk access speed.

Finally, let me apologise for the virtually unreadable box on "TOS 5" in that feature. What you see on screen is sometimes not what you get on paper...

adding a CD-ROM drive to my set-up.

Iain Carr, Surrey

CD-ROM for the Atari computer is very much in its infancy. So far, we have the Atari GEMini CD-ROM from the States and two or three German, Atari-specific offerings and that's it. No UK-based company has yet committed itself to producing an Atari-specific disc.

Over the course of three issues, we covered CD-ROM and PhotoCD technology and then followed this up with a review of the GEMini disc and practical use of a CD-ROM drive. System Solutions' response from this was very poor which is hardly surprising; only a small minority of Atari owners have a hard drive let alone a CD-ROM drive! And a hard drive would certainly be higher up the priority list than its silver-disc eating cousin.

A question about CD-ROM was inadvertently missed off our recent survey, but I have little doubt that the result would have been poor from the response noted above. While the technology is very interesting, an outgoing of some £200

to £300 for the average Atari owner is probably difficult to justify.

Even if an Atari magazine did decide to place a CD-ROM on the cover, there is the very real problem of filling it! An average disc can hold over 600Mb of data as opposed to our floppy disk capacity of around 800Kb. We would have to fill the CD with almost any PD and shareware we could lay our hands on, so causing serious damage to the PD libraries who, by and large, do a very good job. Just take a look at the PC mags with CD cover mounts; we'll see how many of those are still around in a year's time...

All is not doom and gloom. Unlike a floppy disk, almost all CDs are formatted to the same standard which means that you can read discs intended for the PC and Mac on your ST. There are literally hundreds of clip-art and graphics discs, many costing less than £20.

For more information, have a chat with System Solutions (081-693 3355) for Atari-specific discs or with 16/32 Systems (0634 710788) for more general offerings.

£25 STAR LETTER



Loads of room – filling a 600Mb CD-ROM with PD and shareware would be a nightmare for an ST magazine – and the PD libraries!

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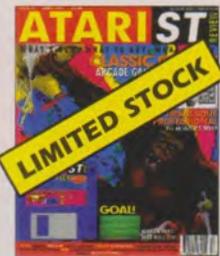
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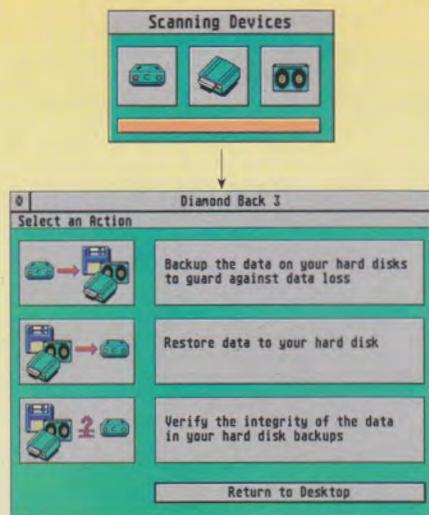
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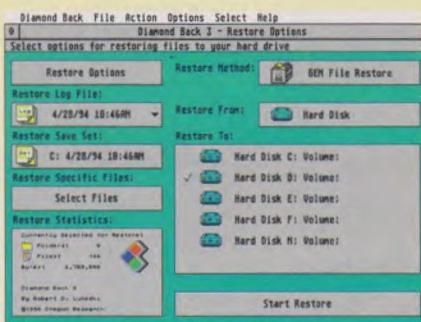
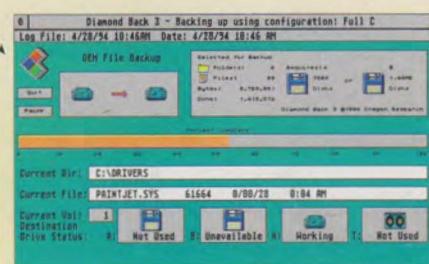
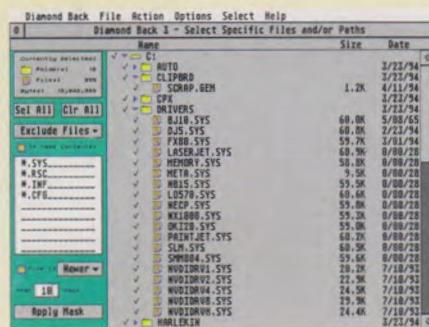
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